

**THE EVOLUTION OF VARIABILITY IN MAGIC, DIVINATION AND
RELIGION: A MULTI-LEVEL SELECTION ANALYSIS**

A Dissertation

by

CATHARINA LAPORTE

Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Chair of Committee,	Michael S. Alvard
Committee Members,	Jeffrey Winking
	D. Bruce Dickson
	Jane Sell
Head of Department,	Cynthia A. Werner

December 2013

Major Subject: "Anthropology

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ABSTRACT

Religious behavior varies greatly both with-in cultures and cross-culturally. Throughout history, scientific scholars of religion have debated the definition, function, or lack of function for religious behavior. The question remains: why doesn't one set of beliefs suit everybody and every culture? Using mixed methods, the theoretical logic of Multi-Level Selection hypothesis (MLS) which has foundations in neo-evolutionary theory, and data collected during nearly two years of field work in Macaé Brazil, this study asserts that religious variability exists because of the historic and dynamic relationship between the individual, the family, the (religious) group and other groups.

By re-representing a nuanced version of Elman Service's sociopolitical typologies together with theorized categories of religion proposed by J.G. Frazer, Anthony C. Wallace and Max Weber, in a multi-level nested hierarchy, I argue that variability in religious behavior sustains because it provides adaptive advantages and solutions to group living on multiple levels. These adaptive strategies may be more important or less important depending on the time, place, individual or group. MLS potentially serves to unify the various functional theories of religion and can be used to analyze why some religions, at different points in history, may attract and retain more adherents by reacting to the environment and providing a dynamic balance between what the individual needs and what the group needs.

Primarily I test, and find support for the hypothesis that magical behaviors are pursuits primarily undertaken to achieve personal or kin related needs. In this data set, 78% of magical behaviors target individuals or their immediate kin. Data analysis also

highlights various adaptive strategies that the group may have evolved to maintain group membership and cohesion. These include the use of stereotypes and specific norms that control or suppress how individuals within the group communicate their needs: a concept referred to as ‘privatizing the public’. In these ‘privatized’ spaces, 93% of magical behaviors target the individual or their immediate kin. For example, confessing ones perceived sins or using magic to help cure a loved one are often behaviors performed with little or no audience or listeners. Furthermore the data illustrate that because of conflicts between the levels within the nested hierarchy, both the individual and the group may reevaluate their stance on what behaviors they adopt or accept.

Analysis of the data also illustrates how magical behaviors provide powerful signals within and without the religious group. Specifically I provide a concrete cultural example of the ‘Green Beard’ affect by documenting how Catholic religious symbolism was purposefully adopted by Afro-Brazilian religious practitioners. Furthermore the data illustrate how some religious groups have hijacked the individual’s propensity for magical thinking and use these behaviors as creditability enhancing and inferentially potent displays which in turn create content or confirmation biases for the practices.

Finally this study hypothesizes how, using the logic of MLS together with data collected on the Afro-Brazilian religious offering, the ultimate benefit of costly signaling may extend beyond the individual, their immediate family or social group. Costly signals, made anonymously, may provide a strategic advantage that enables the group to thrive and compete against other social groups.

ACKNOWLEDGEMENTS

This work would not have been possible without the enduring and unwavering love and support of my husband, guidance counselor, number one fan, banker and best friend, David.

To my wonderful and much loved parents, John and Elisabeth Mandic, thank you for instilling, supporting and encouraging my independence, lifelong love of travel, world cultures and education. You encouraged me to be a cultural anthropologist before I knew what one was!

Additionally I would like to sincerely thank my many, dear friends and family around the world for their moral and emotional support. I am reluctant to name names for fear of forgetting someone.

This work would not have been possible without my Brazilian friends and contacts who each took the leap of faith and trusted my academic motivations. Thank you for your confidence, support, honesty and time. *Abraços e beijos*.

Last, but not least, I would like to thank the superb teachers and professors who have inspired and guided me: Michael Alvard, Jeff Winking, Bruce Dickson, Jane Sell, Nanda Grow, Cynthia Werner and Jason Moulenbelt. Each one of you have challenged my assumptions and made me realize that the more you think you know, the less you actually know.

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CHAPTER I

INTRODUCTION: MULTI-LEVEL SELECTION (MLS) AS A UNIFYING HYPOTHESIS TO ANALYZE VARIABILITY IN RELIGION

In April 2010, with almost 8000 wildfires blazing across the state, strings of record shattering triple-digit scorching days, and seemingly never-ending extreme drought conditions, Texas Governor Rick Perry officially proclaimed April 22 through April 24 as “Days of Prayer for Rain in the State of Texas.” Citing the Constitution and Statutes of the State, Governor Perry’s proclamation noted that throughout history “Texans have been strengthened, assured and lifted up through prayer; it seems right and fitting that the people of Texas should join together in prayer to humbly seek an end to this devastating drought and these dangerous wildfires” (2011). This constitutional proclamation, and resulting rallies and religious gatherings, desperately sought nothing short of the miraculous through divine intervention. I present this example, to demonstrate that reliance on magical or divine intervention is not something reserved for the exotic ‘other’. In this dissertation, I will argue that magical behavior is an adaptive trait, with predictable application, that is maintained by evolutionary natural selection.

Using the logic of neo-evolutionary theory, this study demonstrates that religious variability exists because of the historical and dynamic relationship between the individual and the group. I argue that a high degree of variability in religious behavior exists because it provides adaptive advantages and solutions to group living on multiple levels and for multiple beneficial reasons. Some reasons may be more important or less important depending on the time, place, individual or group.

Science, and especially evolutionary theory, has had a checkered and combative history in relation to the study of religion (Ferngren 2002; Coyne 2009; Attridge and Numbers 2009). It is understood that “dismantling of the taboos that have kept religion out of the scientific spotlight will take time”(Dennett 2006); however, the unifying umbrella that multi-level logic provides to studies involving abstract and complex concepts of human culture, such as morality, politics and religion, has proven fruitful (Haidt 2012; Wilson 2012; Boehm 2012). After almost a century of “dwelling in two non-overlapping *magisteria*” (Gould 1997), it is time to bring religion and science together again.

Defining Religion

Magic, divination or seeking answers or information from the supernatural or divine, and religion are “universal” cultural phenomena; these highly variable behavioral expressions are shared by all societies (Brown 1991). The vast diversity of behaviors that is encompassed under the heading of religion, including magic and divination, has long attracted social scientists. However defining this abstract complex concept has proven problematic, and is compounded by the framework or worldview one adopts (see Bharati 1971, for a good overview; Spiro 1966; Usman 2007). Conversely some have taken the stance that attempting to define religion is a futile (Asad 1983).

Specifically, use of the word ‘supernatural’ in any definition of religion creates a “paradoxical” situation because in the scientific study of religion “we are confronted with the problem of making statements that must be subject to skepticism about statements whose acceptance depends on non-skepticism” (Steadman, Palmer, and

Ellsworth 2009). Furthermore, what is deemed supernatural or super-human in one culture may be perceived as perfectly 'natural' in another (Herbrechtsmeier 1993). For many years the problem of defining religion has been the subject of debate and extensive academic writing, with no definite outcome (Platvoet and Molendijk 1999; Encyclopedia of Religion and Society 1998).

Nonetheless, for purposes of this dissertation, religion will be defined as "*an institution consisting of culturally patterned interaction with culturally postulated super-human beings*" (Spiro 1966) *or supernatural powers*. This definition is useful firstly because it recognizes the cross-cultural variability and patterning of religion, but also because it defines religion as an institution.

Comprised of two or more people, an institution is "a complex of positions, roles, norms and values [that organizes]... human activity with respect to fundamental problems in producing life-sustaining resources, in reproducing individuals, and in sustaining viable societal structures within a given environment"(Turner 1997). When religion is defined as an "institution", concerned with "life-sustaining resources" and "reproduction", as opposed to just a simplistic definition like 'belief in the supernatural', one starts to understand how religion could be a vitally important adaptive factor in human evolution. Along with variability and heritability, sustaining life and reproductive success (or fitness) are key tenants of evolution by natural selection.

What are Religious Behaviors?

Religious behaviors, whether serving the individual, the family or the group, are the "constitute units" (Levi-Straus 1963:211) of religion. A working definition of

‘religious behavior’ is necessary in order to quantitatively analyze them and determine the level of fitness they address. This is not a simple task. Religious behaviors come in many forms and, depending on one’s perspective or the level one is investigating in society, perform a number of fitness enhancing functions.

The problem with defining religious behaviors comes when one starts to think in terms of only serving the individual or the group. Theories that support function at one level or another are discussed extensively later in this chapter. A definition that highlights this problem is one that proposes that religious behaviors are “human-specific, functionally defined behaviors” that are “appetitive”, in that they seek to “sate the appetite for proximate nearness, or call the attention, of the supernatural or God(s) through ritual and ceremony”: for example, prayer or reciting and reading sacred texts (Feierman 2009; McNamara 2006).

This definition is initially attractive primarily because, in my specific study, many of the behaviors I observed, for example the placement of an offering on the side of the road, were indeed appetitive. Often the individual or group was desirous of some supernatural attention, intervention or answers. By definition this appetitive desire is very similar to the definition of ‘magic’ which attempts to evoke the supernatural in an attempt to sate a specific outcome, and ‘divination’ which attempts to sate or “gain insight” for answers (Peek 1991). However, the appetitive definition is only part of the story.

Some of the religious behaviors that I observed were also the reverse. Some behaviors serve only to sate the desires of the supernatural (and not the human). For

example, not divorcing, condemning homosexuality or commanding a woman to be subservient to a man's needs, are all done to satiate the desires of the supernatural and not humans. Perhaps this is just semantics, because those behaviors that 'please' or satiate the desires of the supernatural, in turn result in the perceived ultimate nearness of the individual or group to the supernatural.

The second major flaw to the "appetitive" definition is that does not include behaviors that attempt to evoke the opposite. These behaviors serve to potentially starve the appetite, or deliver punishment by threatening ex-communication with the supernatural or God(s). For example, denying someone from receiving the Eucharist or Holy Communion, threatening an individual to be ostracized from the community, or enforcing collective punishment, all serve to starve the human religious appetite.

Furthermore, as previously discussed, use of the word supernatural in the definition is problematic. With this in mind, Steadman et al., proposed a definition of religious behavior: "*communicated acceptance of a supernatural claim*; that is, the communicated acceptance of another person's claim as true that cannot be shown to be true by the senses"(Steadman, Palmer, and Ellsworth 2009).

This definition is attractive. "Communicated acceptance of a supernatural claim" can come in many forms. Communication could be either verbal or non-verbal. While this definition also includes communicative behaviors to satiate proximate nearness, or call the attention or the supernatural, it also includes the reverse, verbal and non-verbal behaviors that punish the individual or any group who do not follow any supernatural claim. It also covers a myriad of behaviors that are communicated and upheld in the

name of a religious doctrinal decree: for example covering one's head when entering a church or temple or tithing a percentage of one's income. The word 'communicated' is important in this definition because an observer would not know the individual accepted the supernatural claim unless they communicated the same.

What are Magical Behaviors?

Magical behavior, which is a subset of religious behavior, is defined as any human action done to communicate with the supernatural, or evoke supernatural intervention to achieve instrumental ends, such as acquiring answers to questions, love or money, punishing an enemy, or protecting a friend. Divination, a subset of magical behavior, is an alternate way of knowing and "gaining insight" through "a standardized process" of communication where decision making "temporarily shifts to the liminal or non-normal" or supernatural realm (Peek 1991). Divination can be often used to solicit information about the cause of something (like an illness), ask what the future holds for an individual, select a course of action or discover the location of an item. While divination attempts to "gain insight" (Peek 1991) or solicit information, the information obtained could in turn evoke the use of magic which seeks to achieve instrumental ends and change something. Both magic and divination rely on causal connections that a rational observer would describe as irrational, that is, it "asserts causal connections that have no demonstrable existence in the natural world" (Barfield 2000).

Methods of divination are seemingly limitless and include astrology, numerology, I Ching, tarot cards, skrying (looking into a reflective surface like a crystal ball or mirror), bibliomancy (opening the Bible to a random page in effort to seek an

answer to one's problem), sortilege (reading the patterns in objects such as bones or tea leaves), scapulimancy (reading the patterns of a burnt scapula bone), ornithomancy (reading the flight patterns or cries of birds), presentiments, premonitions, prophecy, and although a contentious, also includes prayer.

Prayer especially is a magical behavior that has been renamed and “assimilated in controlled forms” (Jeffers 2007a) into ecclesiastical religion. Most Abrahamic religions would not refer to prayer as magical or as a form of divination. In fact when I used the term divination with a Pentecostal Pastor in preliminary studies for this project (TAMU IRB Protocol 2010-0800), all conversation immediately ceased: I was informed that “divination is the work of the devil.” Despite condemnation, by definition communicating directly with God or the supernatural using the gift of the tongues (Glossolalia) is a form of divination. To illustrate this point, upon learning the anthropological definition of divination, a Mormon religious elder that I interviewed in preliminary studies acknowledged that:

If you're looking at it in the most basic sense, if you're looking at divination attempts to access the supernatural for purposes of learning knowledge, answering the unknown questions like that – I would think that most Christians first of all would say that prayer is a means of divination – I mean you are supplicating your deity for help and understanding about whatever it is that you are looking for...

In addition to seeking advice, guidance and knowledge, it is my observation that prayer is also often used to seek absolution for perceived wrong doing and/or seek salvation in this life or the afterlife. As such, some prayer attempts to change the course of the future or the past, and thus is by definition magic. Finally, some prayer is specifically performed to give thanks and thus “communicates acceptance” of

supernatural intervention in daily life. For these reasons, this dissertation defines prayer and speaking in tongues as magical behaviors.

In this sense, religion differs from science, and the many other ways humans obtain information (for example: genetic inheritance, trial and error, or social learning) in one key element – empirical repeatability and reliability of the interpretation. Thus flipping a coin is not divination because empirical repeatability exists in the interpretation of the outcomes (i.e. either heads or tails). The key here, especially in the case of divination, is the use of interpretation: for example, one might interpret the message in a revelation, prayer or dream, and this is not falsifiable (Rappaport 1971).

Genetic versus Cultural Evolution

To be clear, this dissertation is limited to cultural evolutionary forces. There are many parallels between genetic and cultural evolution: for example, mutation, migration, natural selection, drift, variability, and fitness can all be applied to the study of culture. However, other fundamental evolutionary principals, like using genetic models as a system of inheritance, are not as applicable. Many behavioral or cultural traits are not controlled at the genetic level: for example, to date there is no single gene identified that specifically determines altruistic or selfish behavior. There is no guarantee that the offspring of two Catholics will also be a Catholic. Furthermore, cultural traits are ‘Lamarck-esque’, in that they can change over the course of an individual’s lifetime and are subject to environmental and social pressures. Genetic evolution produces the cognitive ability to produce religion, whereas, in general cultural evolution facilitates the spread of different kinds of religious beliefs.

Framing religion as a culturally patterned institution recognizes that it meets a functional adaptive requirement of survival and fitness. “In the case of the group of individuals, ... “adaptive” [means]... helping the group to continue and grow by recruiting new members and by helping the long-standing members to prosper and reproduce” (Richerson and Newson 2008). Certain cultural institutions do this well and as a result are replicated, become more common, and replace institutions that are not as good at taking care of its members; this is cultural group selection. Within a group, adaptations might include conformity, shared symbols, revitalization and a culture of cooperation and even altruism. However, in the case of the individual these adaptations may address health, reproductive success and relief from anxiety. Furthermore, as Spiro notes, these adaptive needs could be either “cognitive, substantive or expressive” (1966).


Some cultural norms or adaptive behaviors, like everyone driving on the right or left hand side of the road, appear to be devoid of a genetic component. In short, the evolution of culture can explain behavioral variation that is not due to ecological or genetic variation. It is important to note, however, that while culture can be an independent variable that explains behavior, this is often not the case. Many behaviors are affected by some combination of genes, environment, and culture, also known as gene-culture coevolution or dual inheritance theory (Henrich and McElreath 2003; Richerson and Boyd 2005). For example, there can be a genetic inclination to socially learn a specific cultural trait (e.g. Noam Chomsky’s theory on the language acquisition device), and there can be environmental influences on which behaviors are socially transmitted (e.g. people do not go fishing in the Sahara Desert).

Some scientists and philosophers have attempted to apply genetic-like principals to the transmission of culture: for example the concept of a ‘meme’ posited by Dennett and Dawkins, as discussed in another section of this dissertation. While some culture is transmitted in a similar mode to genes (from parent to offspring), most culture is not. To date, there is no “selfish gene” (Dawkins 1976); culture, altruism and selfishness result from a variety of interconnected processes (multivariate, contextual and interactional). Although the selfish-gene and meme concepts remain widely popular among armchair philosophers, understanding differences in modes of transmission and other cultural forces helps to address some of the criticisms that critics have with the application of evolutionary theory to human culture (Henrich 2004).

Background

When I was an undergraduate anthropology student, I remember Elman Service’s subsistence strategy stage theory being drilled into me: levels included band, tribe, chiefdoms and states (Service 1966; Sahlins and Service 1961). In most introductory anthropology textbooks, a chapter or two is devoted to the different modes of production or subsistence and different economic systems and different kinds of attributes loosely correlated with each level. With time and education I started to formulate an overall picture. This picture is illustrated in Table 1.1; adapted from (Miller 2012).

Table 1.1 Levels of social organization and associated phenomenon

Cultural Phenomenon				
Social Organization (Service 1966)	Individuals and Bands	Tribes	Chiefdoms or Confederacy	States
Size	<100 people (kin group)	100 to several 1000 people (clan structure)	1000's people (allied groups)	>100,000 people (unrelated)
Subsistence (Cohen 1974)	Foraging	Horticulture and Pastoralism		Agriculture
Leadership	Band Leader	Big man or woman	Chief	Monarchy, Prime Minister, Emperor. President
Division of Labor	Family based, overlapping gender roles		Class based, high degree of specialization	
Trade	Minimal		Very Important	
Modes of consumption and exchange (Johnson and Earle 1987)	Minimalism, finite needs, equality and sharing, small groups, gifts, balanced reciprocity		Consumerism, infinite needs, anonymous market exchange, buy and sell, production for profit	
Technology and energy	>>> Increased use of technology and energy>>>			
Status Distinction	Egalitarian, collective	Ranked		Stratified, increased power of leaders
Social Control	Norms, Social Pressures, Ostracism		Formal Judiciary, Permanent Police, Imprisonment	
Conflict	Face to face, small scale, rarely lethal	Armed Conflict, revenge killing	War	International Arms Race, Technological weapons, Ethnic conflict, standing armies
Population (Carneiro 1963)	>>> Increased population density and residential centralization>>>			
Social Support	Reliance on kin	>>>		Reliance on political structure
Eschatology	>>> Increased Judgment of the Gods>>> (Dickson et al. 2005)			
Religion (Wallace 1966)	Individualistic	Shamanistic	Communal	Ecclesiastical
Religious Leaders (Weber 1963)	Shaman		Prophets and Priests	
Evolution of religion	Magic >>> Religion >>> Science (Frazer 1894) Polytheism > pantheism > monotheism > ethical monotheism (Weber 1963)			

Early theorists in religion also followed this linear typology. For example, Anthony C. Wallace categorized religion on a unilinear continuum moving from individualistic, to shamanistic, to communal, and finally ecclesiastical (1966). James George Frazer posited an evolution from magic to religion to science (1894). Max Weber theorized that societies tend to move from magic to polytheism, then to pantheism, monotheism and eventually, ethical monotheism (1963).

I raise this issue because it is both problematic and illuminating at the same time. Pigeonholing different types of societies and their associated attributes into distinct categories is very challenging, especially as societies grown larger and more complex. This problem was highlighted while working with the Human Relations Area Files (HRAF) (Human Relations Area Files 2009). In the past, HRAF categorized ethnographies using Elman Service's subsistence strategies. Increasingly as new ethnographies on modern cultures are being added to the HRAF database they cannot be clearly categorized using this method; collectively they are being lumped together into the category of "not assigned" or "other subsistence types." This is because the larger and more complex a culture becomes, the more difficult it is to quantify the percentage of time allocated to a specific type of subsistence strategy and the more likely it will also include some of the attributes of the previous level of organization.

The complexity of classification was driven home to me on several occasions. While in Brazil, I took a break from my fieldwork and went for a stroll along the waterfront in Niteroi. Niteroi is a large city overlooking the harbor of Rio de Janeiro. Across the water, Sugar Loaf Mountain and the iconic Christ Statue are visible on the

skyline. Amidst the noise of the city, the amazing architecture of Oscar Niemeyer, the police sirens, smog and commercial buildings I found reprieve on the beach boardwalk. I walked to the far end of the boardwalk and quite by chance observed some local people collecting mussels on the rocky outcrop at the end of the beach. As the waves splashed over the rocks, the women and their children gathered mussels, and the men cooked the mussels on a fireplace constructed from a discarded oil barrel. All of them enjoyed the feast. This was not a picnic; this was a way of life. These people were a band foraging within the city state. How does one classify this using Elman Service's categories?

In reality, "the evolutionarily later always subsumes and includes the evolutionarily earlier" (Turner 1991). Subsume means to include or to absorb something into something else. In this case the foraging adaptive strategy is subsumed and is still a viable and perhaps necessary way to make a living within the state level social organization. What is interesting about this example is that as predicted by Service's categories, foraging is still an endeavor undertaken by a small group of individuals, or a band, within the confines and benefits of the larger state structure. One could hypothesize that because some of the mechanisms of the state level structure failed these people, they resorted to the evolutionary earlier methodology.

I experienced a similar scenario in 2008 when Hurricane Ike hit the Gulf Coast of the United States. Many of the houses in my street, including my own, lost their roofs. We were without electricity or clean drinking water for over eight days. During this time food and gas were scarce. However an unprecedented sense of community developed in my street. The people who were lucky enough to have them, shared power from their

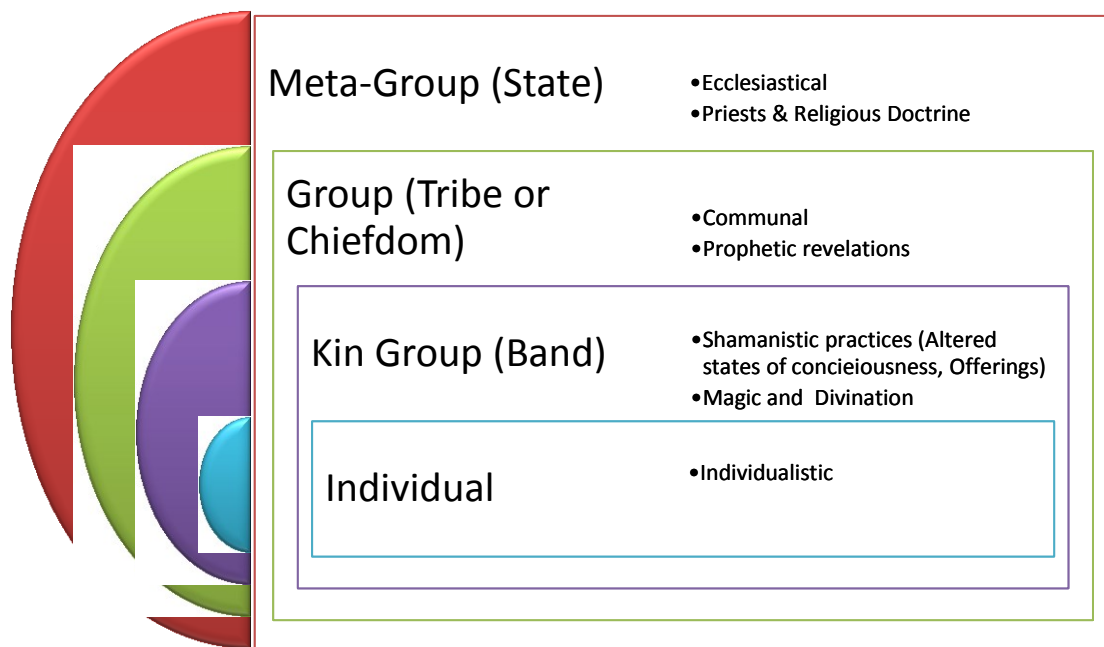
generators, people pulled gas barbeques out in the middle of the road, boiled water and set up hamburger and hotdog stations. Children played in the streets like never before and adults sat on lawn chairs chewing the fat and solving the world problems into the middle of the night. We pooled resources and shared what we had. We became a tribe focused on the collective good. Because the state level structure failed us, we resorted to the “evolutionary earlier” methodology.

These examples illustrate that the development or evolution of a society is not a unilinear purposeful continuum, but each of the levels, and all the associated attributes can be encased within the other. Of the introductory anthropology introductory textbooks I surveyed only Kottak notes at all foraging groups today are subsets of larger social units, however he also noted that “foraging is disappearing as a way of life” and thus perpetuates the inferences of a unilinear continuum (Kottak 2009). Instead of depicting stages as a unilinear continuum (as in Table 1.1), anthropology textbooks should depict these stages as nested within one another in fashion similar to Figure 1.1. Figure 1.1 only includes that attributes that are religious, because that is the subject matter of this dissertation; however nesting levels and their associated attributes within one another would surely be illuminating in other areas of enquiry.

It is for this reason the work of early evolutionists on the cultural and religious stages is illuminating and valuable. When nested into the collective, correlations between levels in the hierarchy, and their associated attributes, potentially highlight why magic and divination could be mainly associated with individual or kin related needs. Although religion has evolved and changed with the development of state level societies,

magic and divination and other shamanistic practices evolved in the long period of time when society was made up of only kin groups and small bands of foragers. As predicted by the stage theorists, the structure, rules and mechanisms adopted by religion change as group size grows (Dickson et al. 2005; Roes and Raymond 2003; Sanderson and Roberts 2008; Swanson 1960), and magical practices are subsumed within the larger structure.

Figure 1.1 Nesting social organization



Magic and Divination Concerned with the Basics of Life

Magic and divination (magical behaviors), a subset of religious behaviors, are often anecdotally noted as pursuits primarily concerned with individual concerns or the “basics of life: such as health, fertility, food and death” (Caquot and Leibovici 1968;

Jeffers 2007b; Park 1963). For example, Park noted that “the ethnographer today seldom observes divination in conjunction with what Durkheim called “collective representation”; far more often it is a mere matter of individual purpose – irrelevant, almost, to anything so grand as the collective welfare" (1963). Set within the nested social organization depicted in Figure 1.1, one can start to understand why. Magical behaviors may have been adaptive strategies used by individual and kin groups long before the advent of the types of ecclesiastical religion we see in today’s state level societies.

Initially I was intrigued by the personal or selfish motivations versus altruistic or group beneficial motivations behind divination. This interest was, in part, driven by an interpretivist paper by Omar Khayyam-Moore who, after observing the “problem solving activities of groups”, argued that divination might be a successful mechanism for randomizing group hunting locations to avoid patch resource exploitation (1957). In addition to being challenged by evidence that the ecological noble savage is a naturalistic fallacy (Smith 1983; Alvard 1993), these assertions have also been directly challenged by Vollweiler and Sanchez who used a HRAF cross-cultural analysis of 197 world cultures to “show that hunters do not randomize their behavior” and that “people manipulate divination with the explicit or implicit intervention of personal choice” (1983).

This dichotomy between individual and group beneficial behavior was compounded in preliminary studies for this dissertation. Some religious leaders stated that when they attempted to focus on the collective good, they were often diverted from

their communal efforts by the needs of individuals, their love lives, and family squabbles etc. (Laporte 2010). For example, although she speaks in a confusing and convoluted way, the following excerpt from an interview with a highly esteemed Voodoo Priestess in New Orleans, highlights her frustration when her divinatory efforts are waylaid by individual and kin related concerns:

Spirituality is so big, beyond these small sympathetic, infuriated people who you want yourself – to seduce yourself too – ...we are seduced just to hear that small petty clammy attitude that people want to find their arrhh [in a high pitch whiney noise] feeling justified that they should have stayed a long time being infuriated by losing a lover or having a boyfriend, or whatever... [she laughs]... you know what I mean? And so you get bored it that's all you are divining. Or you set aside as a spiritual leader and the community or whatever... it gets pretty boring, you just hear complaints. That's what they classify you as supposedly a holy person, beyond holding up sympathetic and small lethargic acts of humanity. [She laughs]... but that's all you seem to find people in the villages – that people will run to you with their most small and sympathetic. A person and a visionary give them far beyond what they say... and then they say [in a high imitative voice] “but what do you mean?” Well you know my mind was so full of life beyond your sympathetic. [In a stupid person imitating voice she says] “but can you tell me, it is going to be nice, is it going to be nice... And then the prophet has gone far beyond... I gave them something that they could have stepped out that door and gone onto a greater cause then they ever saw, far beyond their small minds. [She stops and looks at me shaking her head]

Furthermore, a survey of 200 culture's ethnographies from HRAF, found of the cultures surveyed where divination practices were noted, 91% of divination was practiced for either personal physiological or safety and security concerns (Laporte 2011). For example in effort to answer personal questions, in a similar fashion to our modern day ‘Magic Eight Ball’, the Tlingit of the North West Coast of America use the

...sawed-off section of large animal bone with a hole (part of the pelvis?). Holding this “wish bone” above the head with the left hand, one tries to poke the right forefinger through the hole, without looking. If successful, this means an affirmative answer to one's wish or question. But if one misses on the first attempt, “it's never going to come true” (De Laguna 1972)

And the Khasi of South Asia use any combination of cowries, breaking eggs, examining the entrails of animals and birds, pendulum, rice or stone dowsing “to answer everyday questions (practiced daily by most people)” (Gurdon 1904).

Many of the examples of pertinent literature that discuss the dichotomy between individual and group needs, and magic and divination practices, are philosophical, anecdotal or interpretive; for example, Park (1963) made his assertions with no data. Early functionalists, like Emile Durkheim, Bronislaw Malinowski and Marcel Mauss distinguish religion as an entirely separate entity from magic and divination. Based on his work in the Trobriand Islands, Malinowski asserted that religion serves latent functions in public activity and magic serves manifest instrumental purposes in private activity – with the main difference being that magic is more about the personal power of the individual and religion is about faith in the power of God (1954).

Durkheim also hypothesized on the dichotomy between the individual and the collective; he speculated that religion was a public, social, beneficent institution, while magic was private, selfish, and at least potentially maleficent practice (1915). Similarly Mauss concluded that "a magical rite is any rite that does not play a part in organized cults; [magic] is private, secret, mysterious and approaches the limit of prohibited rite" (1972). Freud simply declared that magic was narcissistic, and characterized as a love of self (1927).

Furthermore, some early influential scholars predicted that magic and divination would ‘evolve’ into religion which in turn would ‘evolve’ into science (Frazer 1894; Tylor 1871). As a result of this ‘enlightened thinking’, together with the efforts of

Abrahamic religious leaders, magic and divination became “synonymous with ignorance, subversion, evil and malice” (Jeffers 2007a). These dichotomies suggesting that magic is a separate endeavor from religion proper have been challenged by the postmodern movement, and criticized as being ethnocentric or purposeful in their agendas (Jeffers 2007b; Winkelman and Peek 2004).

Unfortunately these categories are often loaded with personal biases: James divided personal religion in “healthy-minded and sick-souled” (1902) and Freud who cited Frazer extensively labeled religion as an “expression of underlying psychological neuroses and distress” (1927). Weber considered the Protestant to have greater ethical advantage than other religions (1963). Because of these obvious biases and suggestions that evolution had purposeful objectives, many of these theories evoked criticism. Specifically, these criticisms contributed to the birth of the interpretive, critical and eventually post-modernist movements, not only in anthropology, but also throughout most of the social sciences and humanities.

These alternate epistemologies raise many valid arguments, including some valid criticisms of old unilinear evolutionary theory and valid criticisms of functionalism and structural functionalism (whose instigators and supporters included the forefathers of anthropology and sociology: Bronislaw Malinowski, Alfred Radcliffe-Brown, Emile Durkheim and Talcott Parsons and their students). Critics argued that original functionalist arguments are ahistorical, they are unable to effectively deal with change or conflict, and are conservative as opposed to dynamic. But above all, criticisms emphasize the lack of individual agency in functional arguments.

Despite continued criticisms, some elements of these early theories have merit, especially in relation to religion. William James distinguished between institutional religion and personal religion (1902). Institutional religion refers to the religious group or organization, and plays an important part in a society's culture. Personal religion, in which the individual has mystical experience, can be experienced regardless of the culture. This logical divide still stands as the difference between the disciplines of psychology of religion (focus on individual) and sociology of religion (focus on society). Furthermore, overlaying the levels of development of society of early evolutionary stage theorists, like Elman Service, James George Frazer, Lewis Henry Morgan and Julian Stewart, are pertinent to this discussion.

In this study, I hypothesize that today in state level societies, magical behaviors are indeed primarily concerned with individual and kin related needs. Furthermore, because magical behaviors are not directly connected to the larger group's success or function these pursuits are often controlled or suppressed in group settings or forced to be practiced in a private or secretive manner: for example, confession and salvation from perceived sins, or magic to help conceive a baby, or provide protection from an enemy, are often behaviors performed with little or no audience. I am not the first to assert this, Ann Jeffers, a scholar of magic and divination in the Ancient Near and Middle East notes that:

Magic is religion until some forms/parts of it are taken over by a religious group and the rest redefined as magic – in a derogatory way as a separate and destructive ‘opposite’. This is not so much a rejection of forms of magic and divination as a takeover by the priestly order with the aim to control the means of divine communication. This apparently successful takeover of magic and divination has resulted in both its assimilation in controlled forms and in

unequivocal condemnations of the forms that could not be controlled. (Jeffers 2007b)

Weber also astutely noted that magicians (or shaman) and priests do not mix; the two have completely different motivations (1963).

Review of the Evolutionary Literature Retaining to Religion

Religion is a complex concept incorporating a set of seemingly limitless array of human behaviors. Diverse academic disciplines have generated many thoughts, hypotheses and theories pertaining to religion. Some theories and hypotheses are specifically associated to religion, like the “Religion-Health Connection” (Ellison and Levin 1998), while others, like evolutionary theory and “costly signally theory” (Zahavi 1975), might not initially appear to be relevant, but are none the less fruitful. Additionally many categories of religion have primarily been based on forms or structure and not on function (Feierman 2009). None the less, despite the inherent problems and criticisms associated with functionalism, this study is specifically interested in the adaptive value and function of religion. This is not a new line of enquiry.

In evolutionary anthropology, and especially in relation to religion, the argument between by-product and functional adaptation has been extensively debated (Alcorta and Sosis 2006; Atran and Norenzayan 2004; Sanderson 2008). By-product theorists argue that religion is a by-product of other cognitive adaptations or social living, and not a direct result, but a by-product, of natural selection. Conversely, the adaptationists argue that an adaptation, like religion, is common in a population because it provides group fitness advantage. Recently, the two camps have been proposing meta theories that

incorporate both by-product and adaptation together to form one unifying explanation (Atran and Henrich 2010).

Viewing religion within an evolutionary nested framework, as an interlocking suite of traits functioning holistically, is an important step forward for several reasons. Firstly because it helps to explain some costly or apparent counterproductive behavior: for example a person taking a vow of celibacy or solitude. Secondly it highlights how religion could be a contributing mechanism in the “evolution of complex societies, and finally it is important to understanding cooperation and conflict in today's world (Henrich 2009; Atran and Henrich 2010).

The literature pertinent to this project is extensive; however, I will only include evolutionary theories related specifically to religion. This is done with the understanding that many existing theories in other disciplines and sub-field of anthropology could potentially fall under the umbrella of this study.

Evolutionary theories of religion are often focused on one level in the societal hierarchy. Some of these theories have strengths and empirical support, while some are weak and have little empirical support or are pure philosophical speculation. This review will start with those theories that have a single level of interest within hierarchy, and progress to those theories that potentially span multiple levels.

Religion as an Autonomous Organisms – or – Memetic Uelection

The concept of a “meme” was originally suggested by Richard Dawkins: a hypothetical or conceptual “unit of cultural transmission, or a unit of imitation” (1976). The word ‘meme’, which is now defined in the Oxford dictionary as ““an element of

culture that may be considered to be passed on by non-genetic means, esp. imitation”, has become part of popular culture. Daniel Dennett took to the concept and elaborated on it in relation to religion; he described religion as an autonomous life form, having a parasitic life of its own, evolving, surviving and promoting its own existence and fitness, none of which are dependent on ‘functioning’ for the benefit of humans (the host) (2006). In short Dennett asserts that religion is a brain parasite; he draws comparison to the parasitic relationship that exists between the Lancet Fluke and the Ant: “the ant’s brain [that] has been hijacked by a parasite that leads it to suicidal tendencies” (2006). If true, the religious meme would be an external environmental factor impacting humanity at multiple levels. However, other than comparing the religion/human relationship to the domestication of cows and other parasitic relationships, Dennett, as a philosopher, provides no empirical evidence for his claims.

As a thought experiment, it is undoubtedly attractive to draw parallels and extrapolate the basic unit of genetic transmission (gene) to cultural transmission (meme), high fidelity transmission of genes from parent to offspring is common, whereas high fidelity transmission of culture is rare (with the exception of parent to young child); culture undergoes rapid mutation and redesign in the process of biased transmission and lacks the fidelity of a genetic transmission (Boyd and Richerson 1985).

Religion as By-Product

By-product theories on religion can basically be divided into two groups: by-product of other cognitive function and by-product of social living.

Cognitive scientists attribute religion as a by-product of hyperactive agency detection (Boyer 2004; Atran and Norenzayan 2004), or of psychological mechanisms that evolved during the highly aroused state one might achieve during a goal-directed action or ritual (McCauley and Lawson 2002; Whitehouse 2004) or of “increased social cohesion and the individual benefits that stem from it, such as better physical and mental health and greater longevity” (Sanderson 2008). This group of theorists bases their findings on empirical data.

Two of the evolutionary pioneers in this area were EB Tylor (1871) and JG Frazer (1894). Tylor and Frazer both posited religion as a by-product of the human effort to survive in a sometimes inexplicable and confounding world. These efforts to influence (magic), and explain (religion) relied on supernatural explanations. Evans-Pritchard’s work with the Azande (1937), and the writings of Jeannie Thomas on the Barfing Ghost of Burford Hall (1991) also fall into this category; they both assert that beliefs in ghosts and witches are the by-product of individual fears and real events that violate basic expectations about the world.

Tylor maintained that religious ideas normally appear in the “low races of mankind” and are maintained as “survivals” (1871). These “survivals” are cultural survival mechanisms, much like Dawkins’ concept of a ‘meme’: they are

“processes, customs, opinions, and so forth, which have been carried by force of habit into a new state of society different from that in which they had their original home and they remain as proofs and examples of an older condition of culture out of which a newer has been evolved”(1871). Tylor theorized that animism was birth place of the “survival”, and that the “survival” that had been “deeply modified” in transmission to “high modern culture” (1871).

Recently experimental and scientific work in psychology of religion and neurotheology has found remarkable support for the presence of “survivals” or hard-wired adaptations in our cognitive functioning. Notable examples include Piazza and Bering’s work with Princess Alice (2011), the ability for Out-of-Body experiences to be induced in the laboratory (Lenggenhager et al. 2007; Ehrsson 2007); the ubiquitous nature of sympathetic magic¹ (Hood et al. 2010) and Whitson and Galinsky’s work on how lack of control can increase illusory pattern perception (2008). All of these theories indicate an innate “survival” or hardwired propensity for religious or magical thinking. These theories, however, fail to see religious belief as an adaption in its own right, and fail to account for the “ultra-social” (Boyd and Richerson 1998) nature of religion.

The second group of theorists argues that religion is a by-product of social living. This group includes sociologists, like Karl Marx, Max Weber, Emile Durkheim, Rodney Stark and William Bainbridge. They theorize that religion is a by-product of creating, reorganizing, rejuvenating and/or maintaining social hierarchies, order, materialism and power.

Marx viewed religion as both the source and expression of false consciousness, and as an expression of alienation due to inequality of the economic situation. Marx argued that “religion is a general theory of the world – it is a fantastic realization of the of the human essence; an essence we have not yet acquired” and that “religious suffering

¹ Sympathetic magic, a term coined by James G Frazer in chapter three of *The Golden Boughs*, comes in two forms: homeopathic and contagious (1894). Homoeopathic magic is founded on the “association of ideas by similarity” or “that like produces like, or that an effect resembles its cause.” Contagious or contact magic is founded on the concept “that things which have once been in contact with each other continue to act on each other at a distance after the physical contact has been severed” (Frazer 1894, Chpt 3, 11).

is an expression of real suffering... and a protest against real suffering... it is a the opium of the people” (1964). Stark criticized Marx on this point and highlighted that the bourgeoisie were more religious than the proletariat (2004).

Conversely, Durkheim advocates religion as a unifying or cohesive force within a group, and that God(s) is/are an expression of the function and structure of society (1915): for example the pantheon of Gods and ancestor worship in Chinese folk religion resembles the concept of filial piety in the living world. Durkheim maintained that:

Religious beliefs proper are always shared by a definite group that professes them and that practices the corresponding rites. Not only are they individually accepted by all members of that group, but they also belong to the group and unify it. The individuals who comprise the group feel joined to one another by the fact of common faith.

This ‘unifying’ explanation, which could be either a by-product or within-group adaptation, is like a magnetic charge that gets everyone pointing in the same direction. It has found empirical support in many realms: for example, “experimentally induced religious thoughts reduce rates of cheating and increase altruistic behavior among anonymous strangers” (Norenzayan and Shariff 2008).

Stark and Bainbridge developed a widely cited theory which is commonly referred to as the ‘rational choice theory’ (1987); a by-product of the economic mind. Based on a lengthy series of postulations and definitions, together with the assumption the humans act rationally and seek rewards and avoid costs, Stark and Bainbridge perceive religion as a system of "compensators": compensators to explain what we do not know or understand. In short, when we do not know or understand something, we make stuff up to explain, and because what we seek is reward (avoiding costs),

explanations are often rewards. Thus religion, according to Stark and Bainbridge, is a compensator that relies on the supernatural, because only the supernatural compensator can adequately explain our eschatology, or the meaning of life, and put a ‘rosy glow’ on the explanation.

Rational choice theorists tally the costs and benefits for a single organism, and are committed to the notion that individuals are designed to maximize their own personal utility; however in reality, as demonstrated by the work of Craig and Muir (1996) and Suomi (2005) benefits are often concentrated in some individuals and costs are concentrated in others. Additionally, as demonstrated by the work of Gigerenzer, Selten, Henrich, Boyd and Richerson and numerous others, humans are often not as rational as we might expect (Henrich et al. 2001; Gigerenzer and Selten 2001).

Religion as an Individual Human Adaptation

Malinowski introduced the “vitalistic”, individualistic form of functionalism (1954). In contrast to Frazer, Malinowski argued that all societies think in fundamentally the same way... magic, religion and science are not part of a unilinear evolutionary path but are found concurrently in all societies. Malinowski studied small groups in the Trobriand Islands, Melanesia and Australia, and concluded that religion was helpful in times of stress and uncertainty: e.g. birth, death, marriage, puberty and dangerous endeavors like fishing in the open sea. Malinowski cited van Gennep’s theories concerning the rites of passage (Gennep 1909). He noted that these events are always surrounded by religious ritual. Malinowski considered death the most destructive event in life, and argued that ritual was helpful as it offers hope of life after death and provides

comfort for the grieving. Malinowski concluded that “since religion centers around all ‘vital’ acts, and since all these command public interest of joint cooperative groups, every religious ceremony must be public and carried out by groups” (1954). Thus, the individual “vitalistic” function in turn promotes group cohesion

Religion as a With-in Group Function

Radcliffe-Brown who was also a functionalist, argued that religion did not serve an individual function like Malinowski, but rather a social function: namely “regulation” (1952). Radcliffe-Brown’s analysis of religious ritual and his ideas lead to the concept of structural functionalism; he proposed that one must study the both the individual and collective effects of religion. He proposed that in some societies there is a direct and immediate relation between the religion and the social structure, and by maintaining a sense of dependence, religions perform their social function and visa-versa. Radcliffe-Brown theory is reminiscent of the Fyodor Dostoyevsky's parable *The Grand Inquisitor* (1930). Dostoyevsky’s underlying message being that Church, controlled by a few elite individuals, curtails or regulates the vast majority of human freedoms in return for social security.

In a similar vein, religion can be the catalyst for revitalization in a society or community. Following his research with the Iroquois of North America, Anthony C. Wallace proposed a theory of religious revitalization (1956). Often resulting from a charismatic leader’s prophetic revelations, religious revitalization movements deliberately bring about major change in a community. This change is perceived to be more desirable than continuing the live under current circumstance. These

circumstances, Wallace contends, can arise from a number of perceived stressful and often traumatic situations: including environmental disasters; “political and economic marginalization; loss of effective political participation; economic deprivation and poverty; malnutrition; and high levels of chronic or epidemic diseases”, such as alcoholism (1956). Examples of revitalization movements include the birth of the Pentecostal movement directly following the Great San Francisco earthquake of 1906 (Winchester 2005), the Iroquois Longhouse Religion (Wallace 1956), the Native American Ghost Dance (Mooney 1973), and even the history of the Islamic religion.

In order to successfully regulate and revitalize, there must be guidelines and rules. These rules are often in the form of religious doctrine or directives like the Ten Commandments. When someone does not follow the rules there must be consequence or punishment. Specific norms and rules of the group become the subject of great emotional commitment and solidarity, and norm violators are often punished (Boyer and Bergstrom 2008). The role of religion, and the fear of punishment it evokes in this life and in other worlds and lives, should not be underestimated; recent studies on the mere threat of punishment by an ‘all-seeing-supernatural-other’ is often enough to invoke conformity (Shariff and Norenzayan 2007).

In-group cohesion can also be explained by Geertz’ theories of Symbolic Interactionism (1966). Geertz maintained that religion is a “set of sacred symbols that function to synthesize a people’s ethos (the tone, character and quality of their life, its moral and aesthetic style and mood) and their worldview (the picture they have of the

way things in sheer actuality are and their most comprehensible ideas of order).” Geertz defines "religion" as

(1) a system of symbols which acts to (2) establish powerful, pervasive, and long-lasting moods and motivations in men by (3) formulating conceptions of a general order of existence and (4) clothing these conceptions with such an aura of factuality that (5) the moods and motivations seem uniquely realistic. Religion renders the group’s ethos and worldview as intellectually and emotionally convincing and in doing so constructs a coherent system of meaning (Geertz 1966).

Geertz’ is a fairly open-ended theory that embraces a wide range of data and institutions. Geertz was one of many who viewed religion as shared symbol; others included E.E. Evans-Pritchard, Mary Douglas, Victor Turner, Edmund Leech and more recently Richard Sosis.

Richard Sosis similarly argues that one of the main functions of religion is to promote group cohesion: “collective rituals enable the expression and reaffirmation of shared beliefs, norms, and values, and are thus essential for maintaining communal stability and group harmony”(Sosis and Alcorta 2003). Sosis maintains that the misconceptions surrounding with-in group function (for the good of the group) (Old Group selection), and Multi-Level Selection resulted in mass confusion in the realm of religion, primarily because costs seemed to outweigh benefits within the group.

Based on quantitative and longitudinal data collected from Israeli Kibitzes, Sosis and Alcorta, conclude that “costly signaling theory may offer valuable insights into the distribution of costly ritual practices across varying ecological conditions”(2003). Costly signaling theory is supported by an extensive body of work from diverse disciplines.

Using “costly-signaling” or “handicap” theory, anthropologists, ecologists, and biologists have begun to integrate altruistic or seemingly

irrational behaviors into adaptationist and strategic analyses of decision making and social behavior. There also exists a long-standing parallel set of theoretical concepts in social theory dating back to Thorstein Veblen and Marcel Mauss and more recently refined by Pierre Bourdieu. For these theorists, individually costly but collectively beneficial (or at least prestigious) behaviors such as public generosity or extravagant piety are a form of social competition: the most generous or self-sacrificial individuals gain higher prestige, and the recipients or observers gain material benefit at the expense of their own prestige (Veblen 1899; Mauss 1925; Fried 1967). In its various guises, this approach has been known as conspicuous consumption, wasteful advertising, and the accumulation of symbolic capital (Bird and Smith 2005).

Henrich builds on this theory by modeling how costly signaling and other credibility enhancing displays can help to promote or “ratchet up commitment” which in turn creates a “content bias” for practices within a group. This potentially creates a stable interlocking belief-practice combination within a group, which in-turn promotes “deeper commitments to group beneficial ideologies, higher levels of cooperation within groups, and greater success in competition with other groups or institutions”(Henrich 2009).

In addition to stable, cohesive communities, Cultural Materialists, view religion as the medium through which communities interact with their environment and maintain stable ecologies (see Harris 1974; Rappaport 1968, for classic examples). For more recent examples, using cross-cultural analysis of ethnographies in HRAF, Snarey was able demonstrate that societies facing severe water scarcity are much more likely than societies with an abundance of water to believe in supreme deities concerned with human morality (1996). Similarly Roes and Raymond, shown that larger societies are more likely to control valuable resources, engage in high levels of external conflict, and possess moralizing deities (2003). Hayden, further proposed that religious behaviors

have been favored by selection because of their ability to promote interband alliances (1987). This idea of interband alliances, and by extrapolation in the supernatural realm also including deceased ancestors and unborn children, was discussed by Fukuyama and his chapter entitled the “Tyranny of the Cousins” (2011).

Both Hayden and Fukuyama provide support from what Richerson and Boyd call “tribal instincts” (2005). Humans are notable for their cooperation and strong reciprocity with the group they belong (Gintis et al. 2008), and often display an inherent dislike and distrust of the out-group. Boyd and Richerson (1998) suggest that the propensity to cooperate within groups that share common norms evolved as a result of group selection at the cultural, not genetic level.

Between Group Function

David Sloan Wilson, argues the solidarity function of religion allows groups to operate as “adaptive units” (2002; 2005; 2007; Wilson and Wilson 2008). He contends that such groups are able to function as “adaptive units” because they have systems (expressed through religious doctrine and symbolism) that regulate behavior. Wilson posits that these adaptive features have evolved through an ongoing process of cultural group selection. In this process some religious practices and ideas survive, others become extinct. Wilson argues that religious teachings are aimed at encouraging individuals to behave for the benefit of the group as a collective organism. In his book *Darwin’s Cathedral*, Wilson provides an extensive analysis of Calvinism using this framework (2002). Wilson, like Alexander (1987) and Flinn et al. (2005) maintains that cooperation within groups, provides a selective advantage in competition between

groups. Wilson views such intergroup competition as the driving force for the evolution of religion (Wilson 2002; Wilson 2005).

Other social scientists have also started to advocate multivariate and thus multi-level solutions. Multiple level analyses are also the focus of Human Behavioral Ecology. Borgerhoff-Mulder calls this perspective the “individual selectionist perspective” which highlights the conflict of interests among individuals at each level as well as the potential for cooperation within and between groups (Borgerhoff Mulder and Schacht 2001). More recently Atran (historically a by-product advocate) and Henrich (historically an adaptation advocate) have joined forces and proposed a linkage between by-product theories, participation in rituals involving costly displays which in turn “ratchet’s” people in-group religious commitment, and competition among societies (Atran and Henrich 2010; Henrich 2009). The possibility of these linkages between theories is a very exciting step forward in understanding cooperation and conflict on a large scale.

Religion as a Multivariate, Contextual, Interactional Suite of Interconnected Traits

Perhaps today it is a moot point whether religion is an adaptation or a by-product. Religion may provide fitness on multiple levels. It provides benefit to the individual, be it emotional, rational, physical or psychological. Within the group, religion provides fitness benefit in the form of regulation and stability, cohesion, revitalization, shared symbols, stable ecologies, and moralistic punishment. These factors solidify the group as ‘well-oiled machine’ compared with other groups that do not have the benefits that religion provides. D. S. Wilson, Borgerhoff Mulder, Atran, Henrich and undoubtedly

others, all assert that the existence of religion as a cultural phenomenon cannot be answered by one theory alone. Reviewing the strengths and weaknesses of all the theories sets the stage for the next level of analysis: namely the multivariate, contextual and interactional triggers that make up the whole.

Multi-Level Selection Vheory (MLS)

This dissertation hopes to bring together, and find synthesis, in a range of seemingly incongruent behaviors and theories in “consilience”(Wilson 1998) by using the logic of the Multi-Level Selection hypothesis (MLS) (Wilson and Wilson 2008). MLS is also sometimes called “New Group Selection” (Sober and Wilson 2011). MLS encompasses many theories under one umbrella: individual selection, kin selection (Hamilton 1964) and “Cultural Group Selection” (Campbell 1975; Soltis, Boyd, and Richerson 1995), as well as many of the mechanisms, processes and theories that have emerged from neo-evolutionary theory: for example, natural selection, “individual selectivist perspective” (Borgerhoff Mulder and Schacht 2001), Dual Inheritance Theory (Boyd and Richerson 1985), and Costly Signaling (Zahavi 1975).

MLS postulates that in addition to evolutionary selective forces acting at a genetic level, the process of selection also occurs at other levels in the population structure (i.e. the individual, the kin group, the larger unrelated group, and between groups). MLS “evaluates the balance between levels of selection on a case-by-case basis” by focusing on “the interacting layers of competition and evolution... like Russian Matryoshka dolls nested one within another” (Wilson and Wilson 2008). In

some ways these levels correlate to the levels suggested by Elman Service which were discussed earlier.

While MLS considers the balance between the many layers or levels that exist within a society collectively and holistically, in this cultural study, I am only concerned with the levels of the individual, the kin, the religious group, and the meta-group. This is done with the understanding that there potentially could be interaction at the biological level; however that will not be the focus of this study.

MLS does not favor either individual or cultural group selection (Wilson and Wilson 2008). On a case by case basis, each level is assessed for its ability to maximize fitness or overall reproductive success compared with another level. For example, for a group beneficial trait or adaption to evolve, the benefits the group gains in competition with other groups must outweigh the benefits that could be achieved by an individual alone, however the balance between the benefit to the group and the benefit to the individual should also be assessed; “At each level in the hierarchy, natural selection favors a different set of adaptations” (Wilson and Wilson 2008). What is good for the group may not be good for the individual, and visa-versa.

Empirical support for MLS, and specifically cultural group selection, is now increasing (Goodnight, Schwartz, and Stevens 1992; Craig and Muir 1996; Fog 2003; Henrich et al. 2003; Richerson, Boyd, and Henrich 2003; Sober and Wilson 2011), although it must be noted that these theories have been heavily debated and criticized in the past (Wade 1978; Williams 1966). Some of these criticisms are valid. When analyzed in isolation within any specific group, individuals exhibiting altruistic ‘for the

good of the group' behaviors will surely be reduced in frequency over time. A hypothetical example of this is given by DS Wilson in the first few pages of his book "Darwin's Cathedral": in a flock of birds, the individual who cries out to warn other members of the group of an impending predator will get less food than those just focused on pecking at the ground, and be more likely to be eaten by the predator because it clearly signals its whereabouts (2002). Additionally, if they don't succumb to malnourishment or are killed by predators, over time the altruist will tire of being exploited by the selfish members within the group and change their strategy and become selfish too.

Cultural group selection however, is possible when placed within the logic of MLS. Theory suggests that many of the roadblocks to group selection mentioned by critics do not exist for the MLS hypothesis. Benefits of altruistic acts by individuals within the group, can improve overall group fitness in relation to other groups.

By analyzing on a case-by case basis using MLS logic, we see that costs and benefits differ between various levels; furthermore, these costs and benefit can sometimes be in conflict or contradict one another. While one bird alarm calling may reduce his individual fitness, overall flock fitness maybe increased in comparison with other groups that have no individual crying out. Or to give a human example, rules and behaviors that are beneficial for the longevity and cohesion of a religious group (i.e. improving group fitness by maintaining or growing numbers of adherents), may not necessarily be beneficial to the fitness of a specific individual within that group; for

example rules that disallowing divorce when one spouse is being abused by the other spouse.

The Shaker Religion provides an example with a slightly different twist. Despite being grounded in supremely well-intentioned and functional rationale which provided equality for the sexes, and loving homes for the numerous abandoned children of the time, the Shaker religion today is all but extinct today, partly because of their strict procreation rules (Campbell 1978; Stein 1992). The Shaker's rules mandated that individuals should not reproduce; they practiced celibacy. In the end, the individual and the group's fitness suffered. Ultimately cultural adaptations have to be suited to their function, and improve fitness (of the group, the family and/or the individual), better than other adaptations in order to sustain in a population via either natural or cultural group selection.

In these examples, the levels of fitness benefit are clearly evident; however in other examples the benefiting level of the selection is often not immediately evident or obvious; Scott Atran has provided excellent examples of this in his writing on suicide bombers (2006). Using data presented to World Federation of Scientists Permanent Monitoring Panel on Terrorism (Sageman 2004), Atran maintains that blame and public focus on the cause of suicide bombing is misdirected. Suicide bombing is not initiated by the larger group level of the Jihad, or the individual who is purportedly seeking salvation and happiness in an afterlife. Atran asserts that the actual initiating level seeking benefit is the fictive kin group: "friends and family that form the diaspora cell of brotherhood and camaraderie on which the rising tide of martyrdom actions is based" (2006).

Over the years, many scholars, from diverse disciplines, have advocated multivariate, multi-level thinking (Craig and Muir 1996; Darwin 1871; Dewitt, Sih, and Hucko 1999; Koestler 1967; Rappaport 1971; Turchin and Gavrillets 2009; Wade et al.). This is not a new way of thinking.

In addition, the discipline of sociology, and specifically Structural Social Psychology (SSP) (a sociological sub-field), has contributed many theories supporting the MLS hypothesis, by highlighting the conflict or tension that exists between the various levels in society and the mechanisms used to maintain conformity with group norms. The dynamic relationship between the individual, the in-group and the out-group are fundamental in SSP, particularly in sub-fields related to intergroup conflict, conformity, categorization and differentiation. (Hysom 2010; Tajfel et al. 1971; Asch 1951; Sharif 1989) Although not necessarily couched within an evolutionary framework, theories emerging from sociology and SSP, such as “Optimal Distinctiveness Theory” (Brewer, 1991, 2003; Sheldon & Bettencourt, 2002), “Social Identity Theory” (Turner and Oakes 1986), Exchange Theory (Molm 1997) Affect Control Theory (Heise 1977) and social conflict theories are very supportive of the underlying concepts of cultural group selection, MLS and the relationship that exists between the individual, the group and between groups. Collectively these theories argue the various mechanisms where individuals must seek the optimal balance of between individualism and group norms in order to maintain balance between self-satisfaction and group membership.

Synthesis in Social Science and Humanities

When evoked, I believe that MLS logic ties together a diverse range of hypotheses, observations and speculations from disparate disciplines including religious and women's studies, history, anthropology, sociology, economics and psychology. These various social science and humanities disciplines have frequently hypothesized, theorized or critically analyzed the psychological and/or sociological rationale of religious affiliation and practices. However, I maintain that many of these alternate disciplines focus at a macro level: concentrating on only one level of selection, and not the whole. Table 1.2 provides some theoretical examples.

Academic theories and schools of thought, like those noted in Table 1.2 have mainly focused on one level within society. This is also the case in many of the evolutionary theories discussed in the Literature Review section of this study. The main point that I would like to make is that although these theories do not overtly appear to be embraced under the remit of evolutionary studies, when placed under the umbrella of MLS logic they start to find rational commonality and connection.

Table 1.2 Potential MLS application in other disciplines focused on religion

Theory or School of Thought	Focus in relation to Religion:	Citation	Hypothetical MLS Explanation
Psychology Study of spirituality and health	Focus on the “persistent predictive relationship between Religious variables and health”	(Miller and Thoresen 2003)	Beneficial to the fitness of the individual.
Population Studies on Marriage (intersection between Biology, Psychology and Sociology)	Focus on the individual and kin “benefits of marriage and religious participation.”	(Waite and Lehrer 2003)	Benefits the individual and kin group (mental health and happiness, economic wellbeing, education and wellbeing of children, social integration and support). Waite & Lehrer note that this could be detrimental or “inconsistent with equality for women”, highlighting both positives and negatives.
Sociology Control Theory in relation to Deviance	If a person firmly believes that deviant actions are wrong they are less likely to engage in them. Rules enforced by religion can be a force to prevent deviance.	(Hirschi 1980; Jeffery 1973)	Beneficial for both the individual and the group. Similar to evolutionary theories on punishment and conformity (Henrich and Boyd 1998; Fehr and Fischbacher 2004)
Sociology & Anthropology Symbolic Interaction Theory	Focus on how religion generates collected meaning for the social group	(Mead and Morris 1934; Geertz 1966)	Beneficial because collectively shared symbols are necessary for group cohesion (Leach 1976; Turner 1967) and signals (that are sometimes costly) of solidarity (Bird and Smith 2005; Sosis and Alcorta 2003)
Women’s Studies and cross-disciplinary Critical Feminist Theory	Focus on the ways that religion supports patriarchal forms of oppression. Defines rules on a ‘woman’s role’ in a marriage e.g. “Will honor and obey.”	(Ruether 1985)	Oppressive norms are beneficial at a kin level: forces women to the role of caring for children (ensuring fitness) (Freud 1927). At a within group level, norms of oppression and group sanctioned ownership of women stops in-group fighting. At a between-group level there is strength in numbers when compared with other groups who potentially do not oppress their women. (NB: these are all at a potential costly and detrimental individual female fitness)
Economics Protestant Ethic Rational Choice Theory etc.	Early theorists, like Weber, posited that religion helped fuel capitalism and dominance of some groups in world markets; some also maintain religion as the source of bureaucratic hierarchy and corruption.	(Fukuyama 2011; Grassie 2010; Stark and Bainbridge 1987)	Provides between group advantage or disadvantage.

Statement of the Problem and Purpose of this Study

The problem or phenomena addressed by this research is the high degree of religious variability that exists; why doesn't one 'religion' fit all? The purpose of this study is to apply the logic of MLS to explore and analyze religious variability and the underlying adaptive functions or rationales for their use. I am specifically interested in how a variety of religious behaviors is used by the individual and how these may be justified or compete with group sanctioned practices.

As previously noted, many scholars and theorists have focused on a singular adaptive psychological or sociological benefit or function of religion (Malinowski 1954; Radcliffe-Brown 1952; Wallace 1956; Shariff and Norenzayan 2007; Geertz 1966; Sosis and Alcorta 2003). Others advocate multi-level analysis by identifying how in-group cohesion provides advantage between groups (Wilson 2002; Wilson 2005; Durkheim 1964; Carneiro 1970). Within evolutionary studies, interwoven and linked MLS schemas are now proposed as the answer (Borgerhoff Mulder and Schacht 2001; Atran and Henrich 2010). Consequently I believe many the theories discussed in the literature review have value in when couched within MLS logic; each provides potential fitness benefits for a specific level in the hierarchy; it all depends on the weight of the fitness advantage at one level compared with the fitness advantages of the other levels.

What makes this problem even more interesting is variability. I noted in my preliminary investigations that some religious practices are socially acceptable in some cultures during certain periods of time, when others are specifically denounced or condemned (Laporte 2010; Jeffers 2007a). For example depending on the time period,

circumstance and culture, praying for rain, speaking in tongues, canonizing miraculous saints, reading a daily horoscope, or channeling messages from dead ancestors may be either acceptable norms or forbidden behaviors. Why does such variability exist? I believe that using MLS logic can help to explain this.

The primary objective of this dissertation is to explain the diversity of religious behaviors, especially those that rely on magic and divination, and why they endure as “cultural universals” (Brown 1991). Founding fathers of the social sciences, like Emile Durkheim, Sigmund Freud, James George Frazer and E.B.Tyler, believed that magic, divination and religion would become extinct with advances in science. This does not appear to be the case. Although many magical and divination practices have been relabeled (for example, Speaking in Tongues, Prayers of Supplication and Holy Communion or Eucharist) dominant religions of the world still practice them.

Hypotheses and Predictions

Many of the theories of religion, as discussed thus far, claim religion to be functional adaptation that focuses on one or another of the levels within the population. Further, magic and divination are often interpreted or anecdotally noted as pursuits concerned primarily with an individual or kin member’s needs, or the “basics of life”, like health, fertility, relationships, livelihood, food and death (Durkheim and Swain 1915; Jeffers 2007b; Malinowski 1954; Park 1963; Laporte 2011). Early evolutionists, like Elman Service, James George Frazer, Lewis Henry-Morgan provide a potential rationale for this. Furthermore, it is the author’s observations during preliminary observations in a state level society that, magic and divination are sparingly or rarely

used to benefit the needs of the larger community. With these premises in mind, the following are proposed:

Hypothesis H1: People primarily use magic and divination to target individual or immediate kin related needs. For example, the use of: amulets, crucifixes or images of saints and other forms of sympathetic magic; offerings or bargains with ‘God(s)’; consultation with a religious specialists, such as a medium, priest or prophet, who can practice divination techniques on their behalf; direct divinatory messages such as promptings, dreams, and answers to prayer, will mainly target individual or their immediate kin.

However, because these behaviors and their perceived outcomes are played out in within the MLS hierarchy, they may impact the larger group. These individual or kin targeted behaviors, may conflict with behaviors which enforce group cohesion and ultimately group fitness. Thus, I would expect, as suggested by the logic of MLS together with the sociopolitical levels suggested by Elman Service, that at times, some type of “controlled forms” of magical behavior will be allowed whereas there will be “unequivocal condemnations” of other (Jeffers 2007a). For example, in the Catholic Church, silent contemplative public prayer or consulting a priest in a confessional are acceptable forms of communication, whereas publically voicing one’s failings, concerns, and needs vocally out loud in a church service are unacceptable.

Thus Prediction PH1-1: I predict that in state level societies where ecclesiastical religions dominate, magic and divination are primarily practiced in private and

sometimes covertly, away from the eyes and ears of the group. This observation was similarly noted by Mauss (1972), although not framed within MLS.

Furthermore, one would predict, although it will not be tested in this study, that in societies where ecclesiastical religion does not dominate, magic and divination would be practiced publically. Evidence suggested that this might be the case: the Wana hunters living in the highlands of Central Sulawesi do not have a state level sociopolitical structure or a majority ecclesiastical religion and “magic was often [practiced] at public feasts” (Alvard 2013). The Oracle of Delphi in Ancient Greece, a public sage dating back to 1400 BC before the time of the strict religious dogma of Abrahamic religion, practiced her craft entirely publically.

In state level ecclesiastically dominated societies, behaviors that are beneficial for the individual or kin group could conflict with those behaviors that are beneficial for the group (and visa-versa). Public declaration of individual or kin related concerns and needs may undermine the religious group cohesion or conformity. Thus one would expect that the group may adopt strategies to control the individual, ensuring that individuals conform and in doing so promote group unity.

Or alternatively, the group may change or reevaluate norms in order to appease unsatisfied individual needs within a larger group. The group may sanction some initiatives, by either renaming the behavior or changing their rules and mandates. For example: change their stance on homosexuality, divorce or contraception; or rename some magic as miraculous, or rename and sanction some divination as prayer.

Conversely, prediction PH1-2: I predict that when conflict occurs between the individual and the group's needs, the individual may undertake non-group sanctioned initiatives, and will depart from group beneficial norms to achieve these needs. For example, claim to have received a divine revelation from God stating that divorce, in their case, was an acceptable option. Or, given the option, they may change their religious group affiliation all together.

The counter and null hypotheses will also be tested. H2: People primarily use magic and divination to target group related concerns or need. Hypothesis H0: There is no correlation between the type of religious behavior and the targeted level within the population.

Inherent Problems Studying Religion

Many religious behaviors are hidden or veiled behind the anthropological concept of "ideal versus real" (Linton 1936). For example, my pilot studies and preliminary investigations uncovered that while national surveys and polls may indicate one thing (for example, 74% of Brazilians are Catholic) (Instituto Brasileiro de Geografia e Estatística 2010), reality may be different. My conversations and observations indicated that people use a variety of religions and religious behaviors, including some that are entirely not sanctioned by the religion that they mark on a survey or poll.

Normally, in quantitative studies, if one cannot rely on the validity of the survey data, one would turn to observational data. The problem with this alternate methodology is that many of religious behaviors are practiced privately, quietly and sometimes

surreptitiously; they are not always as readily observable as other public behaviors. People do not talk about the religion with complete strangers. By establishing rapport and intimately conversing with people, one learns what they ‘really’ do, and why they do it. This takes time.

Many evolutionists investigating religion have focused on quantitative analysis by “measuring the contributions of various behaviors and behavioral strategies to fitness” (Boyer and Bergstrom 2008). For example, experiments on undergraduate students (Bering, McLeod, and Shackelford 2005) mathematical models (Henrich 2009; Sosis and Bressler 2003) and cross-cultural comparisons and meta-analysis (Wilson 2005; Atran and Norenzayan 2004; Norenzayan and Shariff 2008). However, as Sosis and Alcorta note,

“Religious behaviors often entail significant proximate costs, such as time, energetic, and material costs, as well as physical and psychological pain, that appear to be greater than any derived benefits... [and] consequently, religious behavior poses a genuine challenge for those who employ optimization, rational choice, or other egoistic based models to explain human behavioral variation”(2003).

I have emphasized this primarily quantitative methodology and terminology for a reason: I assert that, although illuminating, studies relying solely on quantitative methods to explain human variation are indeed ‘challenging’ and unnecessarily restricted by the methodology. Although Wilson and Green (2009) advocated that that "diversity of methods, drawn from virtually every human-related academic discipline, can be integrated within a single theoretical framework for the study of religion," to date this does not appear to be the case. In social science studies of religion that are

attempting to promote evolutionary theory, quantitative studies have dominated (see Grassie 2010, for good overview).

I am a practitioner of evolutionary theory, and by extension the mainly quantitative methodologies it normally adopts. However, in my education I have also had enough exposure to other epistemologies, methodologies and worldviews to believe they also have validity. This is especially important as MLS becomes a more accepted framework for analysis; individual and kin fitness and the rationale behind individual behavior form the foundation of human culture and evolutionary theory.

Unlike other species studied for their fitness, humans can talk. By using the individual's voice, and recognizing individual agency, we can understand the underlying individual motivations for their actions, and expose the tensions that exist between the various levels within society. For these reasons, although it was not my original intent, this study will use mainly qualitative data, but analyzes it using both quantitative and qualitative methods.

The Design, Methods and Procedures

In effort to explore religious attitudes and practices demographic, interview and observation data was collected from a purposely diverse sample of participants in Macaé, Brazil. This sample was chosen in effort to obtain “maximum variation sampling”(Patton 2002); participants vary greatly in their religious beliefs, class and race, and are currently undergoing major cultural change due to rapid economic expansion and natural resource exploitation.

Methods

In order to overcome these inherent problems studying religion at both an individual and group level, answer my questions, and achieve this goal in a timely fashion, this project adopted an “emergent” and “synergistic” mixed methods approach (Creswell and Plano Clark 2011). This was not my initial intention. Initially I had planned a two-phase mixed methods “sequential exploratory design” that incorporated an initial qualitative phase, followed by a quantitative phase (Creswell and Plano Clark 2011). But after spending nearly two years in the field, I discovered that getting a large enough sample of diverse people to trust my motives, and talk about what they really do and really believe, was problematic. I also realized that instead of obtaining real data, if I used a typical ‘survey’ format I would only mirror other surveys that potentially collected ‘ideal’ as opposed to ‘real’ data.

Emergent mixed methods designs generally occur when an approach is changed after the study is underway because “one method is found to be inadequate”(Creswell and Plano Clark 2011). It is synergistic because it incorporates both testing of my original hypotheses, but also uses the same data to uncover phenomena that illustrate evolutionary processes in action.

Specifically quantitative and qualitative text based analysis was combined with hypothesis testing for the following reasons: it is useful for exploring a complex cultural phenomenon in depth (Tashakkori and Teddlie 2010); it is “well suited to test emergent theory” (in this case the hypothesis being MLS) (Morgan 1998); it identifies important

and potentially unknown quantitative variables (Creswell and Plano Clark 2011); and can potentially generalize results to different groups (Morse 1991).

Because of the emergent problems in my initial design, I gathered basic demographic and quantitative data during the course of the lengthy qualitative open ended interviews, participant observations and field notes. On several occasions I met with my interviewees over multiple visits, establishing rapport and revisiting their previous answers. This method was reminiscent of the methods used by some anthropological projects that primarily collect quantitative data, and then return to the sample population and interview selected individuals in an attempt to explain results (Shenk 2007; Gurven et al. 2009; Winking 2011, personal communication); Creswell and Plano-Clark would call these types of projects “mixed methods sequential explanatory” (2011).

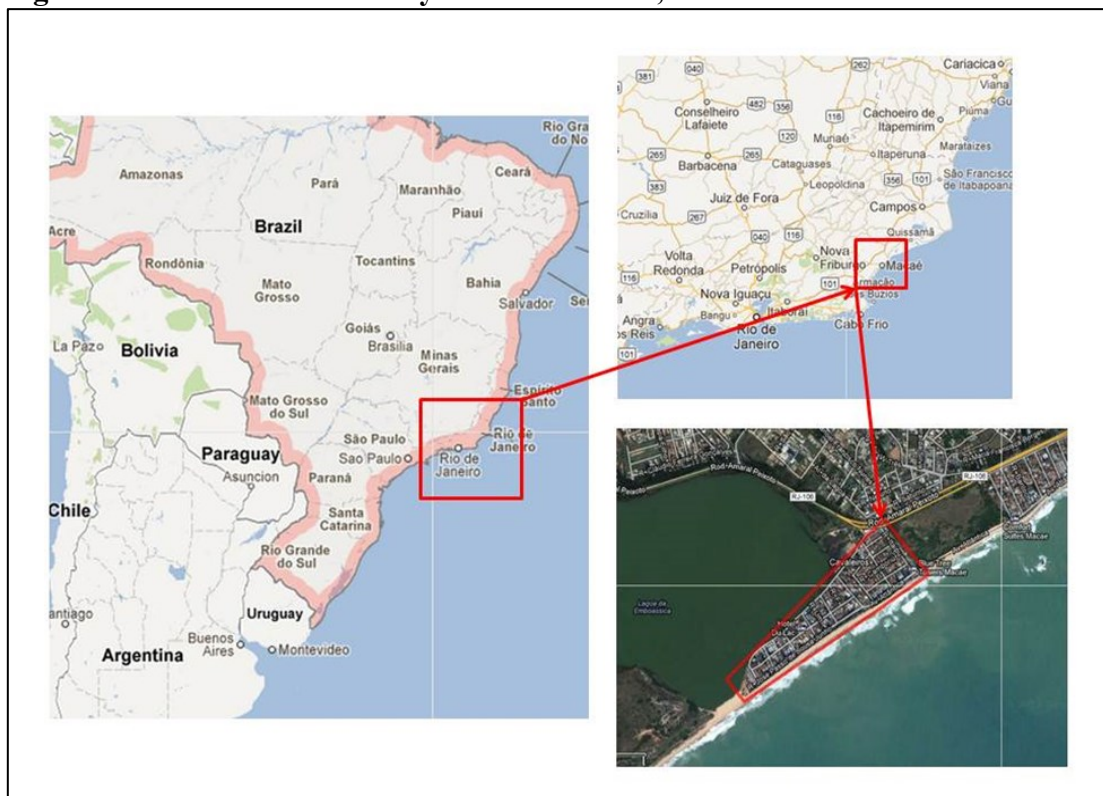
Field Site

All fieldwork was conducted in Macaé, in Rio de Janeiro state, Brazil (Figure 1.2). Macaé, a rapidly expanding and evolving city, attracts a diverse population; many traveling great distances daily to obtain work. I chose this field site because this collective population uses a vast array of religions and religious behaviors; many leaving physical evidence: e.g. evidence of offerings to the *Orixás* (Afro-Brazilian religious deities), public displays of religious symbols and artifacts, and a plethora of different religious groups and organizations. Additionally in Brazilian culture, once rapport is established, people are more inclined to talk about their beliefs and, for the most part,

invite newcomers to observe their actions (e.g. Umbanda and Spiritism rituals, ceremonies or Evangelical events) [personal observation].

In addition to the impact of major cultural changes due to rapid population and economic growth, international integration, and government controlled oil and gas resource exploitation, the population demonstrates great variance in their religious beliefs, socioeconomic status and race. Because of this variance, this is a perfect population to use for “maximum variation” or “heterogeneous sampling” (MVS) (Patton 2002, 234-235).

Figure 1.2 Location of study field site Macaé, Brazil



Sampling

Employing a similar principal as statistical ‘regression to the mean’, MVS purposely selects to interview people with diverse opinions or worldviews. By nature of its design, MVS avoids researcher bias or “one-sidedness of representation on the topic” (Patton 2002). Although not specifically named as MVS, Shenk also used this strategy to “reflect the breadth of the survey sample...” in her dissertation data collection (2007).

Twenty two (22) purposefully diverse interviewees were found by snowball networking starting from existing contacts made in pilot studies. By using categorical data from the 2000 Brazilian census, maximum variance in the population were sought (Instituto Brasileiro de Geografia e Estatística 2010): male and female (m/f) Afro-Brazilian religious practitioner versus (m/f) devout Evangelical versus (m/f) devout Christian/Catholic versus (m/f) devout atheist/anti-religion; (m/f) very wealthy versus (m/f) very poor; (m/f) urban dweller versus rural dweller; (m/f) preta/negra (dark skin) versus (m/f) branca/loira (light skin; (m/f) Brasileira/o versus (m/f) Estrangeira/o (relocated expatriate). Purposeful sampling via personal introduction was the only viable option for this study, for similar reasons that Shenk described in her 2007 study; “attempting to sample randomly... would not be realistic..., [because] without personal introduction many potential respondents would refuse to participate in a survey or interview.”

Methodology

The interviews were recorded and transcribed, following TAMU IRB Protocol 2010-0394. Interviews were one-on-one, open-ended and semi-structured, and used

proven tools to help build rapport and elicit the ‘real’ versus ‘ideal’ responses. The structure of the interview was purposefully designed follow a “questionnaire arc”: moving from the “bland to the provocative”, starting with the “easy to explain to the more difficult” (Henderson 2010).

The first two questions were a play on word association in effort to get the interviewee to open up and think about themselves in relation to their religious practices. The interviewee was asked to finish the following sentence ten times: “I am...?”; and then “Religion is...?” ten times. From these two questions, and the subsequent discussion, I obtained quantitative demographic information such as age, gender, marital status, brief family history, ethnicity, race, socioeconomic status, occupation, and their ideal or official religion. I was also able to ascertain what they consider to be the most important elements of their lives, when and where they rely on religious for their needs, how they perceive themselves in relation to their beliefs, and why they practice the religion that they do. This particular technique proved most useful as segues to starting deeper and more meaningful discussions, and eliciting real beliefs, specific religious related examples and the diversity of religious behavior in their lives.

In addition to the two types of opening questions and the ensuing discussions, I also use a technique called Photo-Elicitation (Collier 1967): this technique involved showing the interviewees three images of religious related methods of communicating with the divine (or divination). In transcription of the interviews and throughout this dissertation these images are labeled [Image 1], [Image 2] and [Image 3]. (Figures 1.3-1.5).

Figure 1.3 Interview image 1



Figure 1.4 Interview image 2



Figure 1.5 Interview image 3



The use of these images facilitated common ground and conveyed a message without the use of words. I would ask the interviewee how they feel about these images, what they mean to them and how (if at all) have they ever seen them used. In order to avoid bias, all interviewees were presented with the same images in the same order. These images were purposefully selected because, like MVS, they represent the breadth of belief and are most likely to evoke responses.

Photo elucidation has proven especially fruitful in interviews relating the religious related beliefs and practices. Samuels used this technique when interviewing Sri Lankan Buddhist monks and found that the use of photo elicitation “tended to evoke thicker descriptions from the research participants, descriptions that were more emotionally charged than word-only descriptions...; descriptions grounded in everyday,

concrete experiences” (2004). Similarly, Vassenden and Andersson found that the use of two images of holy books (a “Bible with a pair of aged hands folded on top, and a Qur'an with a prayer bead”) tapped into “silent knowledge about different Religious life-worlds” (2010). Both research studies noted that the use of this technique provided an effective means of “bridging” the culturally and socially distinct worlds of the researcher and the researched (Samuels 2004; Vassenden and Andersson 2010).

Furthermore, in order to mitigate biases and “observer-expectancy” (Rosenthal 2005), I tried to stay as neutral as possible during the interview. Using images to elicit conversation was helpful because during an interview our eyes were often focused on the images rather than looking at each other and reacting to non-verbal cues.

In addition, if the conversation warranted it, I would verbally prompt a specific imaginary visual clue or event (for example, mentioning an offering on the side of the road). I noted that interviewees would mentally go to that place, and I perceived their answers were more honest personal opinions as opposed to what I perceived to be a bulk-standard ‘ideal’ regurgitated response. Often the use of the images and verbal imagery led to other personal stories that were not already covered by my interview questions. I noted that often these types of honest responses frequently only came towards the end of the interview (and only after they have told me what they ideally should do and think); thus, it was important that this technique was only used towards the end of the interview.

I recorded these interviews using a Livescribe Pen, which enables synchronized note taking on specialized note paper. As well as obtaining written consent, a

requirement of the Texas A&M University Internal Review Board, I used this pen to also record verbal consent to be recorded. In order to ensure anonymity, all interviewees were given an Alpha-Numeric Code and no real names were used.

Participant observation data were also collected. In addition to attending public religious services, during my time in Brazil I was offered, and often accepted, religious related literature and opportunities to observe and participate in many religious related events: for example, Pentecostal and Evangelical gatherings, Umbanda, and Kardec Spiritismo meetings festivals and consultations, Jehovah's Witness meetings, Baptist and Catholic group meetings, services and masses. These participant observation events often opened up invitations and opportunities at other conversations and events, as well as serving as a mechanism of improving interviewee sample variation while collecting observational data.

Data Analysis

All interview recordings and all participant observations were transcribed. Field notes were also maintained as MS Word documents. Some interviews were conducted entirely in Brazilian Portuguese and others were a combination of English and Portuguese. As is the case in much of the world, many people were keen to speak and practice their English with a native English speaker; however, while they may have started their interview in English they often reverted to Portuguese once the subject matter became complex. I translated and transcribed all but two of the interviews using F4 transcription software. Transcription took place within a maximum of five days of the interview, in effort to remember and capture the context and non-verbal communications

in the interview. In those two interviews that I did not personally transcribe (G4 and W1) the interviewees had either a strong colloquial accent or spoke very fast, and I used a transcription service. MaxQDA version 11, mixed-methods analysis software was used to store and code this interview, observational and field data.

Coding the Data

The data consist of twenty two transcribed interviews, ten comprehensive participant observations at religious events and copious quantities of field notes and images. The data were collected during summer 2010, spring and fall 2011, and spring, summer and fall 2012.

Using MaxQDA, demographic variables were assigned for each interviewee including, gender, age, race, perceived socio-economic status, and original stated religious affiliation of the interviewee and their parents (if known), and disclosed religious affiliation at the end of the interview. Segments of text in all data, including interviews, participant observations and field notes were then coded. The details and criteria for this coding are discussed extensively in Chapter II of this dissertation.

Some of these categories were then converted into variables for quantitative analysis. MaxQDA allows for the retrieval and crosstab analysis of any or all of these variables and codes. It also allows for simple and complex lexical searches within any of these analyses. While coding, MaxQDA automatically calculates the “area” and “percentage coverage” of the segment of text: in that it provides the “number of characters in the coded segment” as well as the “numbers of characters in relation to the number of characters of the text as a whole.” In addition, data, or any portion of data,

can be exported for external analysis. At times I exported the data to MS Excel to generate graphs, or perform statistical calculations. As I worked through the data, MaxQDA also allowed me to make comments or notes on the documents, and formulate ideas and hypotheses about salient categories.

Limitations of this Study

This study does not debate or explore the rationality or irrationality, or the real or perceived advantages or disadvantages of religious participation, practices, mechanisms or behaviors. I adopted a pragmatic stance in that I believe that religion provides function on multiple levels.

Additionally it should be noted that there are hundreds of books, articles and studies on Candomblé, Umbanda and other Afro-Brazilian religions, their history, or syncretic nature and their tenuous relationship with Abrahamic Religions, or how it could be a symbol or methodology for resistance or identity or political voice of the people. This study is not one of those. Also there are many sources of information the beliefs, doctrine and Kardec Spiritism (*Espiritismo*), Catholicism, Pentecostalism, and other religions mentioned in this study, I will not be repeating that information in this dissertation.

I am a Neo-evolutionist and Neo-functionalist. I am aware of the social science and humanities criticisms and arguments against evolutionism and functionalism. Furthermore, I am aware that functional theories do not necessarily explain how the phenomena originated or why it is what it is -- cognitive theorists appear best to explain

this. Recent meta-theories that incorporate both cognitive, by-product and adaptive explanations are encouraging (Atran and Henrich 2010).

I am also aware of the criticisms that original functionalist arguments support notions of status quo and fail to account for social change; however, I feel that when placed within the logic of the MLS hypothesis, functionalism is a useful mindset to explain variability and change, and ultimately religion.

While it should be noted that *Homo religiosus* has behavioral actions and efforts, it also has feelings, ideas, moods and motives. The latter, however, are not necessarily observable or openly discussed. For the most part this dissertation uses data obtained from observable, identifiable behaviors and private conversations. As such the data are not repeatable in a true scientific sense.

I personally collected and coded all the data for this study, using qualitative methods. Thus the data may reflect only what I found to be conspicuous or interesting. Although I made every effort faithfully replicate what I saw, heard and experienced, further research in this area may benefit from adopting a more standardized form of tabulating religious behaviors. Additionally, although I attempted to test for biases while coding the raw data (as detailed in Chapter II), perhaps employing two or more researchers, or an independent third party to code the same field data, would further ensure coding reliability.

Finally I am aware that an entire branch of study is involved psychological factors as they pertain to religion, for example how personal religiosity can be somewhat predicted based on personality type. This will also not be discussed.

What to Expect in the Following Chapters

Each of this dissertation's chapters begins with vignette that exemplifies the topics being discussed in the chapter, followed by an explanation of the vignette and an introduction. Chapter II begins with discussing how I coded and identified religious behaviors in my dataset, and then tests my hypotheses and prediction PH1-1. The results illustrate that by using the logic of MLS, and categorizing behaviors based on the target of the behavior, patterns in the data begin to emerge.

Chapter III builds on this idea, by exploring both group and individual religious change and evolution, and the mechanisms that each level uses to sustain fitness. Specifically this chapter will explore the inductions of PH1-1 and PH1-2. This chapter highlights the conflicts that exist between the individual, family, religious group, or large societal level functional needs. Finally this data will challenge the widely held assumption that people automatically inherit their religion from their parents; data indicate that there are numerous rationale and different heuristics a person might use to choose or change their religion.

Chapter IV explores and speculates on an interesting phenomenon encountered during my fieldwork and resulting data analysis: the religious offering. This chapter uses a combination of existing evolutionary theories, including costly signally and cultural group selection, to speculate on the enduring nature of the religious offering in Brazil and the fitness benefit it may ultimately provide.

As well as reviewing the utility of using the MLS logic, and discussing negative and positive participant reactions to my methodologies, Chapter V will discuss some of the more significant findings of this project and speculate on their broader application.

Overall this project will demonstrate that religious variability is maintained in state level societies where ecclesiastic religions dominate in order to satisfy the needs at the multiple levels within the population. These could be individual needs, family needs, or the needs of the larger social group in order to thrive and compete against other social groups. For the broader impact, I postulate that some religions attract and retain more adherents, because they provide a ‘balance’ between (a) a personal and interactive relationship with the supernatural or God and (b) other larger group beneficial endeavors.

CHAPTER II

ANALYZING RELIGIOUS BEHAVIORS USING THE LOGIC OF MULTI-LEVEL SELECTION (MLS)

I got married when I was eighteen. When I woke up after my marriage, I thought what “did I do!?! I am crazy ...I need to stop this right now, this is not the person [husband] that I want... and this is not right! I shouldn’t have left my family’s house for no good reason. It was not right!” I am crazy!

But the most important thing was that God was telling me, telling me, that I made the wrong decision. My father did not agree with the marriage — also my Mom — also all my family. On the wedding day my dress didn't arrive, and judge forgot the day. But...I am a very determined person, and I was so determined to get married and prove to the people that I could it, that I went to the judge's house and said come here, I need you to marry me! And we intercepted the truck with the dress, and picked up the dress, and we had the wedding.

These were signs! Absolutely! God was saying to me don't get married. But I didn't want to see. Absolutely! But still I married him.

I was confused, because he [my husband] was spiritually perfect to my church. He has a very powerful gift: he is a prophet, a very, very powerful prophet. I had great times, very powerful times, moments very close to God. Two people came to us and said we have cancer. And he knelt on the floor and prayed and the people were cured! Yeah... he has a very powerful gift. Yes! Another thing, when he prayed for them, people in the mental institution become sane. It's fantastic, it's fantastic!

But I destroyed his life because he was like a perfect member of the church. He was perfect and I was perfect... we went to the church in Rio de Janeiro and there was like 300 people who came. He is powerful... we believe that God gives you the power when he wants to. My husband was a very virtuous person, and everybody was looking to us like an example, and I was so unhappy! It was so great to have these experiences and have these moments, and see the people being cured or having their souls cured... and...when I made the decision to get out of the marriage and say to Brazil (it was like saying to the whole of Brazil) that I was unhappy... this was not an option!

CML: Why were you unhappy in your marriage?

Because I thought I didn't love him in the way I should; the way you should love someone to be with them for my whole life. But... for the church I needed to [do it]. It was a commitment. When I made the decision, I knew that he was a very powerful man and important to the church. It was also my responsibility to take care of him, of the church, of the children, as well... we were like... [pause]... people used to say to me all the time, "oh my dream is to be like you guys" or something like that — for five years this went on. And when I did it [left him]... he didn't... when I left home and he continued... ummm... to do the rituals. Things changed. In his position... ummm... he just had one chance, one chance, to choose one wife and it should be forever—because he is a man of the church, with a ministry. For him it was very awful and awkward as well. He lost the ministry and went back to San Paulo, and even though he has the gift [of prophecy and healing], he could not be a man of the church anymore. So I ruined his life.

I feel responsible for that. Absolutely, absolutely... I am responsible for that, because I made the decision to marry with him knowing his potential in the church, to stay with him and be an unhappy person, and pray every day to God to put love in my heart [for him]. I had this option.

But, what I did in the end was totally different to all the options that I was originally presented. I left and stopped listening to everybody. I said goodbye to all my family and everybody else, and just prayed and said "God, forgive me! Please give me a person who'll take care of me, who will not beat me" My grandfather said to me, "Pray to God to resolve your mind... to help to be mature".

My Grandfather is very wise. He was not angry with me. He counseled me. I remember before I divorced, he said to me: "What you are doing is incorrect to our church. I know that you know that. You will have consequences. You are a social person in our church. People will not talk with you. The people will not speak with you, will not tell you '*a paz de Deus*'" [customary greeting meaning God's peace]. To us this is very powerful, because we desire the peace of God in our hearts, in our soul. And he said, "the people will not tell you that! You will suffer a lot, because you are a very emotional person and very connected to them socially... and you have a ministry, you take care of the kids, and you take care of the girls [she is the leader of the girls group at her church], and you will lose everything. And also you cannot help your grandmother take care of the poor people in the church". I have helped her for a very long time. He said "You cannot be part of the charity ministry anymore. You cannot do that! You cannot do that, because you cannot have any public

presence in the church. Because you know the rules! And you are breaking the rules!" And... and... "you cannot take the Holy Communion anymore." Yes, this is very important to me, and he said it's the rules.

He said, "if you are OK with that, the salvation is personal... and you know that if, it is written in the Bible, if you are sleeping with someone, maybe one go to heaven and the other don't go to heaven... maybe the same bed, maybe in the same house... you know that salvation is particular. The church will not save just anybody!"

But, I realized, it's not the church! It's you and God - it's your heart and God! We have a church to organize the things, because not everybody can interpret the Bible, it's just some rules to organize people. Some people need to have something, some rules to live by...

So when I was alone after all these things, after the divorce and after everything, I saw the consequences. I saw the consequences... really. I remember the church, the church where I go today, is the church where my ex-husband was the minister. When I used to go there, there were a lot of people that used to say "sit here, sit here [motioning alongside themselves]". But after the divorce, I was there and I stayed for ten or fifteen minutes and it was so cold... nobody said anything.

But this is not what it says in the Bible. We need to love and to be forgiven. But... this was the consequence, because for the people we have rules. But as time passed everything changes: there were consequences, and I needed to understand and pass through this. This happened with my family, this happens.

But... this also made me stronger. When it was over, I asked God "Do I have salvation? I did everything wrong".... And He [God] said "Sometimes I pick up the dirty and I make it clean, and I used you as an example, a bad example". I believe in this, because I am here right now, and I am still going to the church. When I go there I feel God inside my heart, and I feel like... yeah... it was a moment, and it passed, and I'm Ok right now. It hurts. It hurts... but I am sure that there are people in the world suffer much more than I suffered.

In this opening excerpt from an interview, G3, a highly ranked member of a first wave Pentecostal group, describes the repercussions of deciding to divorce her “powerfully prophetic”, miracle-performing, pastor husband. This one vignette demonstrates numerous religious behaviors experienced by one person during one period in her life: prayer, confession, premonition and signs, miracles, expectations of exemplary behavior, holy communion or Eucharist, public outreach ministries, opportunities for social interaction, public ostracism, and fear of eternal damnation.

A careful reader will also note that in this vignette, G3 said she prayed for a different husband that will “not beat her”. If her husband did beat her, this would be a good reason for G3 to want out of her first marriage; her personal safety was at risk. Despite her religion’s rules and the consequences resulting from the divorce, G3 did everything in her power to justify divorcing her first husband. For G3 this was a matter of individual survival.

This vignette was chosen not only to highlight the huge diversity of religious behaviors that exists in one religion alone, but also to demonstrate the conflict that sometimes exists between individual needs, and the group mandated rules and behaviors. This vignette demonstrates how G3 used magical thinking, in the form of prayer and divine messages from God, to resolve this conflict. This is the subject matter of this chapter.

The purpose of this chapter is to test my hypotheses and one of the predictions outlined in Chapter I, and provide evidence to support my other predictions. I hypothesize (H1) that people use magic and divination primarily to meet individual or

immediate kin related needs. However, because these behaviors and their perceived outcomes are played out in within the MLS hierarchy, they may impact the larger group. These individual or kin targeted behaviors, may conflict with behaviors which enforce group cohesion and ultimately group fitness. Thus, I predict (PH1-1) that magic and divination are primarily practiced in private, away from the eyes and ears of the group.

The counter hypothesis (H2) will test the reverse, that people use magic and divination primarily to meet group related concerns or needs, and the null hypothesis (H0) that there is no correlation between the magical behavior and the needs met, and by extension the level within the population.

Using the definition, “*communicated acceptance of a supernatural claim*”, I will discuss the methods I use to collate information on religious behaviors, and how I categorized and interpreted the results. From these results I will test my hypotheses and prediction and show that there are patterns in the diversity of behaviors. I will demonstrate how magical behaviors are primarily performed for individual and kin related concerns in private, how and potentially why some religions sanction some behaviors and condemn others, and thus demonstrate the utility of using MLS logic to explain some of the diversity in religiously based phenomena.

Data Analysis

In order to test the hypotheses, data were collected using the design, methods and procedures described in Chapter I. After transcribing all interviews and observations, data were coded or assigned quantitative variables in five stages. A code in qualitative inquiry is most often “a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña 2013). Assigning codes to qualitative data in effort to use “free-flowing text” as a “proxy for the human experience” is commonly called “classic content analysis” (Marshall and Rossman 1995; Creswell and Plano Clark 2011; Tashakkori and Teddlie 2010). Classic content analysis is an approach to text analysis that is distinctly quantitative and scientific in style (Krippendorff and Bermejo 2009), and is the same method used to code data in the Human Relations Area Files (Human Relations Area Files 2009).

Raw data used for analysis in this chapter consists of twenty-two semi-structured open-ended interviews (Male =10, Female=12, average age=39, maximum age=82, minimum Age=26), and ten participant observations at various religious events (Document $N=32$). Table 2.1 summarizes the details of the interviews and participant observations. The specific details of the coding are detailed in the following sections. The first stage of coding, coded entire documents for quantifiable categorical and numeric variables. For example, each interview document was coded with the religious affiliation, race or age of interviewee. The second, third, fourth and fifth stage of coding, coded specific segments of text within each document using categorical

variables such as what religion they were talking about, communication of a religious behavior, or the target of the behavior. Chi-square, Yates Chi-square and Fisher's Exact statistical analysis was performed using an online tool provided by K.J. Preacher of Vanderbilt University (2001).

Stage One Coding – Document Categorical Variables

In the first stage of coding, transcripts of interviews were assigned variables associated with the entire document. As applicable these included the gender, race, socioeconomic status of the individual, their age, what religion they originally said they were, their father and mother's religion, and finally their actual religion assessed at the end of the interview, and any secondary religion that they also practiced. These document variables are also detailed in Table 2.1. Participant observations were assigned only the actual religion category. For example a transcript of an interview with a Catholic person was assigned a document categorical variable of Catholic, or a participant observation at a Pentecostal church was assigned the document categorical variable of Protestant.

Table 2.1 Details of Interviews and Participant Observations

Doc Name	Bytes	Gender	Race*	Socio Economic	Age	Originally said religion was...	Mothers Religion	Fathers Religion	Actual Religion	Secondary Religion
C1	19875	Female	Branco	High	82	Atheist	Catholic	Atheist	Agnostic	
E1	22939	Female	Pardo	Low > Middle	48	Catholic	Catholic	Catholic	Protestant	
E2	25601	Female	Branco	Middle	31	Catholic	Catholic	Umbanda	Spiritism	Umbanda
F1	11072	Female	Branco	High	34	Catholic	Catholic	Catholic	Spiritism	Catholic
F2	14209	Male	Branco	Middle > High	59	Atheist	Not Present	Methodist	Agnostic	
G1	9407	Female	Pardo	Middle	34	Catholic	Catholic	Catholic	Catholic	
G2	12351	Female	Branco	Middle	28	Evangelical	Baptist	Baptist	Protestant	Evangelical
G3	18532	Female	Branco	Middle	26	Pentecostal	Pentecostal	Pentecostal	Protestant	Pentecostal
G4	33140	Female	Pardo	Low	42	Evangelical	Evangelical	Catholic	Protestant	Pentecostal
I1	9538	Male	Pardo	Middle	26	Catholic	Catholic	Catholic	Catholic	Evangelical
I2	22377	Male	Preto	Middle	42	Catholic	Catholic	Catholic	Rosa Cruz	Catholic
M1	24278	Female	Branco	Middle	29	Jehovah's Witness	Evangelical	Catholic	Jehovah's Witness	
O1	19131	Male	Pardo	Low	30	Jehovah's Witness	Jehovah's Witness	Jehovah's Witness	Jehovah's Witness	
O2	33578	Female	Branco	Low > Middle	34	Umbanda	Spiritism	Catholic	Umbanda	
R1	11170	Male	Pardo	Middle	52	Atheist	Catholic	Catholic	Agnostic	Catholic
T1	24508	Male	Pardo	Low > Middle	46	Catholic	Catholic	Catholic	Umbanda	
T2	11085	Female	Preto	Low	36	Catholic	Catholic	Catholic	Agnostic	
T3	28326	Male	Pardo	Low > Middle	46	Catholic	Catholic	Catholic	Catholic	
V1	18930	Male	Branco	High	33	Spiritism	Spiritism	Spiritism	Spiritism	
V2	33952	Male	Branco	Low > Middle	30	Evangelical	Various	Not present		Evangelical
V3	17329	Male	Pardo	Middle	27	Catholic	Catholic	Catholic	Catholic	
W1	24082	Female	Preto	Low	42	Catholic	Catholic	Unknown	Agnostic	Evangelical

Table 2.1 Continued...

Doc Name	Bytes	Gender	Race*	Socio Economic	Age	Originally said religion was...	Mothers Religion	Fathers Religion	Actual Religion	Secondary Religion
Asemble de Deus	19876								Protestant	
Congregacao Crista No Brasil	22273								Protestant	
Grupo Espirito Pedro	11505								Spiritism	
Igreja Baptista em Cavaleiros	15610								Protestant	Baptist
Ingreja Mundial	14715								Protestant	
Paroqui a Nossa Senhora da Gloria	10593								Catholic	
Paróqui a São João Batista de Macaé	12381								Catholic	
Testemunhas de Jeová	11193								Jehovah's Witness	
Umband a Centro Macaé	16496								Umbanda	
Xango Menino	11777								Umbanda	
* Broadly speaking Brazilian race equivalent in North America: Branco = White, Preto = Afro-American, Pardo = Mixed										

Stage Two Coding – What Religion are They Discussing?

The second stage of coding involved selecting segments of text within each document for the generic name of the religion, or set of beliefs, that was observed or talked about. These included Catholic, Candomblé or Umbanda, Agnostic, Spiritism, Jehovah's Witness, and Protestant. Collectively, Baptists, Methodists, Pentecostals and Evangelicals, or "any new religion that is not Catholic" (E2) are referred to as Protestants. Jehovah's Witnesses, although also considered to be Protestant were kept separate as a distinct group, mainly because of some of their unique religious behaviors which actively focus on inter-group behavior. Just for clarification, an interview transcript that may have been assigned the categorical document variable of Catholic in stage one coding, could have text within the document coded to another religion, if for example, the interviewee was talking about Umbanda or Protestantism. Cross matching this stage of coding with stage one document variable coding enabled analysis to discriminate between adherents talking about their own religion, or some other religion.

Table 2.2 Distribution of stage two coding by religion

Distribution of coding by Religion	Frequency of codes	% percentage
Buddhism	1	0.37
Candomblé or Umbanda	60	22.14
Catholic	76	28.04
Jehovah's Witness	14	5.17
Protestant	91	33.58
Rosa Cruz	6	2.21
Spiritism	23	8.49
Total	271	100.00

In total, 271 segments of text, of varying lengths, were coded in the second stage of coding. The percentile distribution of text attributed to the resulting religious sub-codes is illustrated in Table 2.2. Because of the minimal discussion or observation of Buddhism and Rosa Cruz was found in the data (only seven segments of text in total), further analysis excluded either of these religions or philosophies. Reducing the number of segments coded in this stage to 264. Segments included everything from an entire participant observation of a specific religious gathering (Average Character Count = 12,620) to conversations about religious behavior by practitioners and non-practitioners (Average Character Count = 1173). Distribution of the sources and average character length of these segments is illustrated in Table 2.3.

Table 2.3 Results of stage two coding: segments of texts by the religion being discussed

Religion	Number of Segments of Text coded from Interviews			Number of segments of text coded from Participant Observations		Totals
	By Adherents	By Non-Adherents	Character Count Avg	N=	Character Count Avg	
Jehovah's Witness	13	0	1164	1	11091	14
Protestant	43	44	1136	4	15235	91
Spiritism	18	4	783	1	11383	23
Umbanda	22	36	1676	2	14032	60
Catholic	25	49	1108	2	11357	76
Totals	121	133	1173	10	12620	264

Stage Three Coding – Identifying Religious Behaviors

The third stage of data coding involved identifying segments of text in each document that discussed religious behaviors, per the definition “communicated acceptance of a supernatural claim”. The types of text coded in this stage were very

diverse and included everything from Bible study groups, to prosthetizing and acceptance of divinely inspired rules for personal conduct (e.g. wearing a headscarf in church). In addition a separate code was created for specific mention that a particular religion did not practice or tolerate certain behaviors. For example some religions, like Pentecostals and Jehovah's Witnesses do not use any form of religious symbolism or ornamentation, like crosses or statues. In total, 630 segments of text within the thirty-two documents were found that "communicated acceptance of a supernatural claim".

Each of these 630 segments of text was then sub-categorized as either being communicated acceptance of a *magical* supernatural claim (hereafter referred to as 'magical behavior') or not. For purposes of this study, magical behaviors included any action done to communicate with or evoke supernatural intervention to achieve instrumental ends, such as acquiring answers to questions, love, health or money, punishing an enemy, or protecting a friend. Divination is a subset of magical practices because through communication with the supernatural it attempts to "evoke answers" gain insight or solicit information, but this information in turn can be used to achieve instrumental ends and perceivably change something. For example, the following passage was coded as magical behavior because it describes using prayer and water as a homeopathic or sympathetic form of magic to achieve good health and other wishes.

Also you can use water, and you leave it there, and then you pray for good things in the water... good things for your health, for things that you are wishing... and then you drink the water after you pray. You do that, it's like... it makes you feel good. I need to do more of that. When I was young we used to do that with my parents... they still do that... but... you pick one day of the week and a time, and you do that every week. I need to do that more.

Similarly, in the following example, my interviewee describes how she prayed for divine intervention to resolve her son's fever.

It was a very special event, one morning, I had. When my son was small, then by morning I woke up and he was like, burning with fever. And so on that day, at home, I had to give a remedy to it. And it was early dawn, about 2 o'clock in the morning, as I did not even go out or ask a neighbor a remedy. And then at that point there, I bent my knee on the bed and started asking, that God would be the remedy of my son that day. And there I was praying, asking. Suddenly, on the edge of my bed I could behold a man all in white. There was such a great peace in my heart. And when I finished asking me to put my hand on my son, my son was chilly, no longer had a fever. Then that time I went back, I knelt down and, at that time, a vote with you. I said God, while I live I want to be in your presence, worshiping you, the beautiful things that we can see what God can do when we ask with the heart.

In total, 178 out of the 630 original segments of text were coded as magical behaviors. Each of these segments coded in stage three intersected with codes ascribed in stage one and two, and primarily enabled analysis of religious behavior by religion.

Stage Four Coding – The Target of the Behavior

The fourth stage of coding involved looking at each of the religious behaviors that were identified as magical behaviors in the third stage of coding and determined whether the target of the behavior was an individual or an immediate kin member, the religious group or outside of the religious group (i.e. one of four categories).

As well as evaluating the specific context and information within the segment of text, pronouns and kinship terms were used as evidence of markers for individual (I, me, you, themselves, he, she, him, her), of kin (family, mother, father, son, daughter, grandfather etc.) or in-group identification (we, us). Coding determination was made

based on a combination of the content of the conversation and on the use of markers within the text segment.

Behavior that was coded as targeting the individual was determined either when a person specifically said the magical behavior was for an individual or personal function, or used a majority of singular personal pronouns in the majority of the text segment. For example the following segment was coded as targeted towards the individual because the interviewee specifically identifies it as individual's need to make a decision about relocation, while also using a majority of personal pronouns.

When my grandmother died, **I** was very attached to her, and **I** knelt down alongside her, and it was just when **I was deciding if I should** move to another city for a new life or stay where **I** was, it was a big decision, a long way to go and **I** didn't have a penny in my pocket... I remember her lying there dead and **I** was with her... in Brazil there has to be a person with the dead body all the time, and it was my turn... and **I** remember being close to her and **I** touched her and she was ridged and cold [she reminisces about how her grandmother smelled when she was alive]. I remember closing **my** eyes and asking her a question about moving: **should I or shouldn't I go?** ...And **I swear I** saw her head move like this [makes nodding motion]! [she laughs] **I** have no idea; maybe **I saw what I** wanted to see... **I** still recall that as if it were today.

Similar examples include people praying to help find employment, or searching for answers when they are on their deathbed. The following example, which was also identified as a magical behavior in the second phase of coding, was also coded as an individual target because of the use of singular personal pronouns.

God said to **me**, **you** can be anything **you** want and also **you** can stay with anyone **you** want.

Behaviors that targeted the kin group were coded when kinship terms were specifically used (for example, family, parents, father, mother, son, daughter,

grandmother), and the target of the magical behavior was kin. To illustrate, in the following example, my interviewee describes how she had rubella as a small child, and her family prayed for her (their kin), additionally in this excerpt the family believes the parents (the kin targets) were miraculously punished for having sex before marriage.

So all my family was praying and praying and praying....

... and one thing that I hadummmm.... one of the other problems with the rubella that affected me was my kidneys... I could not go pee... the doctors needed to put a small camera and a catheter inside me and insert liquid and do all the trials and everything. My family said there was a lot of suffering... but I was so small I didn't remember. I thank God because I didn't feel anything. And what my family say was like a miracle... in seven months I was walking and speaking - seven months! Yeah it was like a miracle. What some people say in my family is that it was like a punishment for my parents because my parents had sex before the wedding... [pause]

Group related behaviors were coded if the target of the behavior was a religious group in general. For example, in the following passage taken from a participant observation at an Umbanda Meeting place, the leader of the event rearranged the circle of mediums on the dance floor in order to redistribute the flow of energy.

Unhappy with the distribution of the mediums and attendants in the circles, the president then instructed the performers (and mentioned that he had told them this several times before) to space themselves more evenly. The energy, he explained, is like a chain, and each link in the chain should receive an even amount of energy...

Additionally, behaviors were coded as group behaviors when the behavior was performed in front of the group with no specific recipient. For example, in the following excerpt, one of my interviewees describes how spirit writing and healing is done and then discussed before the whole group.

The doctors and nurses—we call them the "falanges" (fingers). **We** have the falanges of Saint Miguel, and the falanges of Bissonnet Menezes, he was a doctor... and we have someone who draws, so she is there sometimes, just drawing... and in the evening when everything is finished, she just drops all the drawings...and starts to talk about it. So **we** learn a lot of stuff from the drawings.

This vignette also illustrates another coding criterion for the group: when the majority of pronouns used were plural, such as ‘the people, the men or the women, they, them, themselves, we, us and our’. Similar examples can be found in the following vignettes which were both coded as behaviors targeted at a group level.

Like for **us**, when the person dies, the body is dead - right? But the soul lives. This is because the spirit.... **we** are here for one reason. **We** need to grow as a spirit... **we** are not here together for no reason. That is what **we** believe. **We** know each other and **we are here together** for a reason. And the spirit has the need to come to the earth to develop - you know - to be better. That's what **we** call reincarnation. So that's what **we** believe. The spirit has the need to come back and develop and then die again. Sometimes it has to pay for something—like when you see a child dying three months after it is born - that is the reason for that. It is not for no reason. **We** believe that there is life after the body is dead.

Although one would think that reincarnation is normally targeted at the individual, this segment of text was coded as group related behavior because of the majority use plural pronouns.

Inter-group targeted behaviors were coded when a person purposefully targeted people outside their immediate religious group, like a television broadcast of a spiritual surgery or praying for unknown people and strangers. For example in the following vignette describes a person praying for a person outside his religion.

I have a story to tell about the terço [Rosary]. I have... when I started to study English, I got a couple of pen pals from around the world, and we started to exchange things (stamps, CD's, music etc.). One of my friends is an old lady, she is married and she lives in Australia. I gave her

a gold medal, an Our Lady [of Aparacida] medal, and I asked her to put the medal inside the pillow [her husband's pillow]—and she put it there for years.

CML: Why?

I was praying for her husband. Her husband didn't follow any religion. What happened? The husband, he gave up and became a Catholic. And she wrote a letter to me, and told me that, in praise for me, that he husband was baptized in the Catholic Church... and the son was the Christian Father of his Father. You see when you baptize a kid, you have a Christian father and a Christian mother (CML: they call them Godparents in English)... Yes yes! the son was the Godparent of his father!

CML: Do you think the medal or the terço has some (and I don't want to use the word), some kind of magical power?

No, it's not magical power. When Our Lady appeared to people, she said "if you use this I will give you what ever you want... if you use this medal, if you use the rosary I will give you blessings... we need to spread out this idea, and we need to put my image in your room.... and people started to think about this.

Only eight segments of text of text were actually coded Inter-Group.

At times some magical behaviors could have targeted either the individual, or the group. However, as illustrated in the following example, from a participant observation, the emphasis in this discussion was on the people in a group setting, so it was coded as targeting the group.

He explained that there are two forms of architecture for this type of “cult”. The first is a “house of oration” and the other was also a house of oration, but contained a Baptismal pool. People could only be baptized after fifteen years of attendance.

Conversely, the following discussion on baptism was coded as targeting the individual because there is no mention of group observance. Emphasis was on the personal possessive pronouns.

I moved to a small town and I lived with a Catholic family — I was baptized at eight, and went to the first communion and all this...

The rationale for this is that that in the aggregated data we should see a specific magical behavior, in this case baptism, targeting both individual and group.

Based on these coding criteria, especially if the paragraphs surrounding the coded text were reexamined, all but one of the magical religious behaviors identified in the third stage of coding were coded in stage four. The final distribution of coding in Stage five is illustrated in Table 2.4 In all future analysis the one unknown data point is excluded ($N = 177$).

Table 2.4 Distribution of stage four coding: target of the magical behavior

Target of Magical Behavior	Coded segments N=	Percentile
Individual	110	61.8%
Kin	28	15.7%
Group	31	17.4%
Inter-Group	8	4.5%
Unknown	1	0.6%
Total	178	100%

In effort to avoid over stating in the number of segments targeting one level or another, especially if one person in one document talked about a specific behavior more often or gave more examples than another person, a comparison was done between the total count of all segments coded as magical behavior ($N=177$) and a count of the number of segments limiting each document to one instance in each category out of a possible 132 instances (i.e. 4 categories x 32 documents) ($N=67$). For example in a

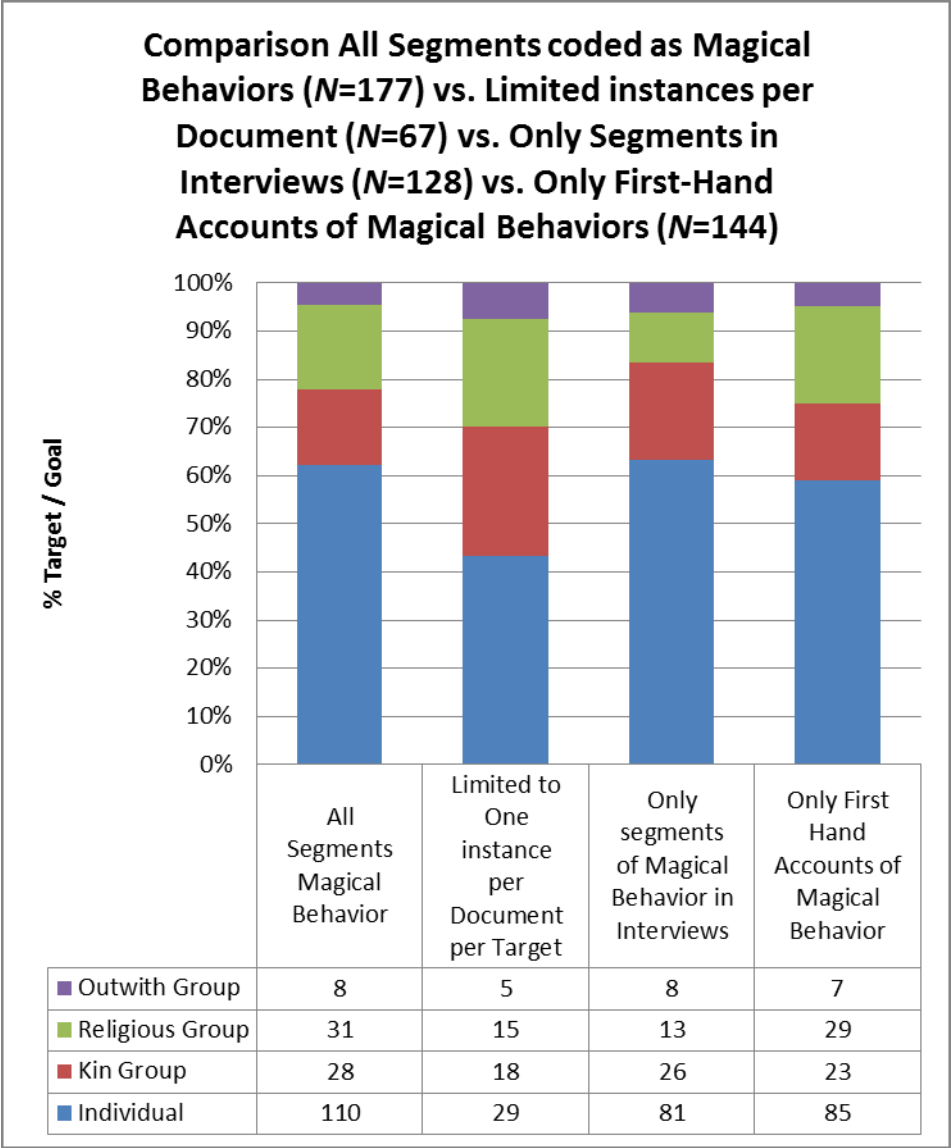
participant observation, even though I may have witnessed the same behavior multiple times, within a document it was only allocated as one instance. Results indicate that comparing all segments coded as magical behavior ($N=177$) with number of segments limiting to one instance per category per document ($N=67$) indicated minimal statistical significance between the two sets of data, $\chi^2(3, N=244) = 7.584, p = 0.06$. Thus for purposes of future analysis all segments ($N=177$) of text were used.

In further effort to avoid over stating the number of segments allocated to each target, another comparison was done between the count of all segments of text ($N=177$) and only segments of text extracted from interviews ($N=128$). Results indicate that comparing all segments coded as magical behavior with only segments extracted from interviews indicated no statistical significance between the two sets of data, $\chi^2(3, N=305) = 4.074, p = 0.25$. Thus for purposes of future analysis all segments ($N=177$) of text were used.

In a final measure to avoid over stating the number of segments allocated to each target, all segments coded as magical behavior text ($N=177$) were additionally coded for being either first or second-hand accounts. Of the 177 segments of text identified in stage three coding, 144 were coded as first-hand information, while 33 segments were identified as second-hand or hearsay. Comparing all segments coded as magical behavior ($N=177$) with only segments coded as first-hand accounts of magical behaviors ($N=144$) indicated no statistical significance between the two sets of data, $\chi^2(3, N=321) = 0.441, p = 0.93$. Thus for purposes of future analysis all segments ($N=177$) of text were used.

These three tests for potentially overstating the number of segments coded by target are graphically illustrated in Figure 2.1.

Figure 2.1 Testing distribution of coding in stage four

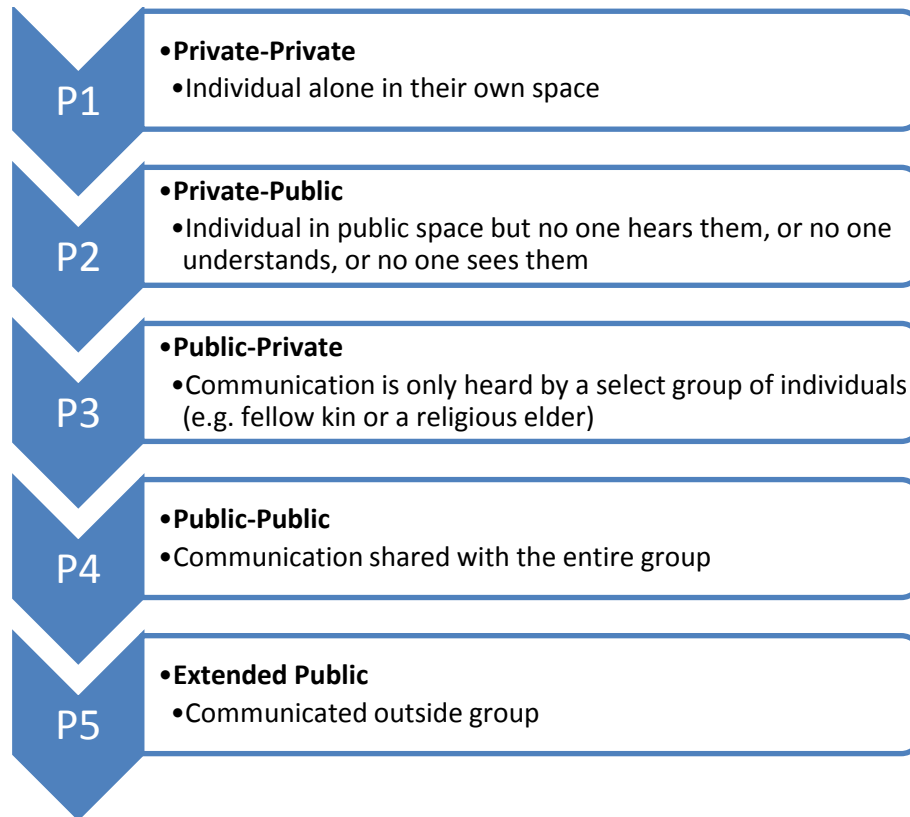


Stage Five Coding – Public or Private

In the fifth stage of coding, each of the 178 magical behaviors identified in stage three were examined and coded for whether they were a public or private act. This was specifically to test prediction PH1-1: that in state level societies where ecclesiastical religions dominate, magic and divination are primarily practiced in private and sometimes covertly, away from the eyes and ears of the group.

The dichotomy between public and private was not a clear cut dichotomy, but more of a continuum. People could practice magical behaviors alone and completely privately, but there are also religious endorsed mechanisms that allowed individuals privacy in public spaces. To explain, if somebody practiced a magical behavior in the privacy of their own home, with no onlookers (e.g. silently saying a prayer in bed, or interpreting the contents of a dream which is also called oneiromancy), the segment of text was coded Private-Private (P1). However, if they practiced the behavior publically but no one else heard it or no one else understood it or no one else saw it, it was coded Private-Public (P2). For example, silently praying in a church, or a person speaking in tongues at a religious gathering. If the communication is only heard by a select group of individuals (limited to fellow family members or a religious elder) the segment was coded Public-Private (P3), whereas if the information was shared with the entire religious group the segment was coded Public-Public (P4). And finally, segments were coded Extended Public (P5) if the communication extended beyond the religious group to other groups. This continuum is illustrated in Figure 2.2

Figure 2.2 Stage five coding categories of public and private



For example, in the following vignette the interviewee describes something that she learned secondhand; her friend taking her son to an Umbanda House and being diagnosed as being possessed by four different spirits. The target of this behavior was coded as kin because the target of this behavior was her son, and because she took him to a “church”, the action was coded as P4 Public-Public.

She told me some very weird things... When her son was born (he's eleven years old now) — when he was about three or four years old he would see things at night and wake up screaming. She would say

“what’s the matter with him.” And he would talk about stuff, and she would say: “what does he mean?” I mean things that a child of his age shouldn’t talk about or things he was never exposed to. She said she got so desperate with him that she took him to doctors and all kinds of places.... And then finally somebody said take him to this church or this religion or whatever, and she took him. And they said he was possessed by four different spirits, because there was four different things he would talk about that weren’t related but could have been related, but she didn’t know. And so that made her beliefs stronger in these alternative kind of religions.

To provide another example, the following vignette was coded firsthand account with a kin target because the target of the prayers were his son and grandfather, but because the behavior was witnessed by a select group of individuals (fellow family members and a religious elder) the segment was coded Public-Private (P3).

Well the priest came to our house and made prayers for our son, and made vows and said some prayers and makes you feel comfortable. The priest cannot be compared with a protestant pastor. I don't feel the protestant pastor has the same power in his hands. When the priest comes he makes the sign of the cross, I feel... "Oh God is here". That's what I feel. And when my father got sick, I told my father he could die in peace, because the priest came to see him many, many times. And he was indeed dying, dying, dying... forever... in peace. As a matter of fact, it is the presence of the priest that allowed this. Nobody can contradict what I am saying, because I saw... I was at the testimony of my father passing away... when he was sick [pause].

Some behavior, such as giving an offering in the middle of the night on the beach (public space), were coded as Private-Public (P2), because no one else saw it; however the artifacts of the event could be very public, and are discussed extensively in Chapter IV of this dissertation. For example, the following vignette, coded as targeted at a kin member, was coded as P2 (Private-Public) because it appeared in the middle of the night (no one saw it), in a place that was not the individual’s own space.

Oh, when I see this kind of thing I know is there evil actions, someone is doing harm to someone wanting to destroy someone's life. I say this because in my own family this has happened. My older sister when she married her husband, his mother never accepted her. The mother-in-law did not want my sister to marry her son. The mother-in-law was very fond of it this, the voodoo [pointing at the interview image 3]. My sister and her husband are still together, but the first son she had with my brother-in-law died from night to day with an act of witchcraft.

Because she [the mother-in-law] did not want the child, did not want the marriage. And boy was very beautiful, a healthy boy, had no problem. Then, from night to day the boy got sick, withered and died without explanation. No explanation. The doctor found nothing.

CML: But all people believe it is because there was an offering?

Many times yes. After the boy died, we had his funeral. The next day, the mother [my sister] went into the room to clean. She pulled the bed where the dead child had been sleeping away from the wall, and on the ground, where the crib had been, was a candle on the floor. We did not use candles. Where we lived had no electricity, but we use a lantern at the time. We did not use candle.

To provide the final example, the following was coded Private-Private (P1)

because it was the individual, alone in their own space.

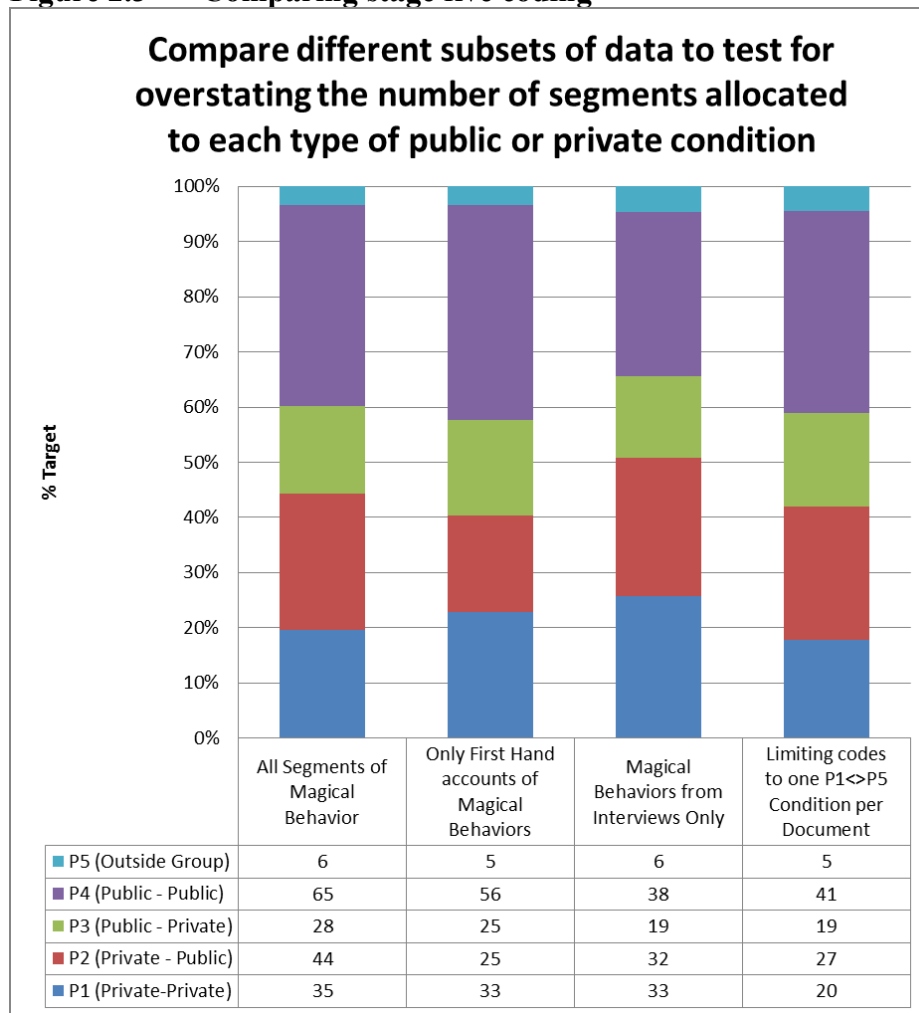
I can feel his presence beside me, close to me; I can feel it when I'm in trouble, even sad or distressed. With a contrite heart means, sometimes, many things happen, but when I arrive at my house and I go in my room, and an both my knees, I ask Him to help, pray to Him. Immediately I have that peace in my heart. All that sadness, everything that is overwhelming me... it eases me and everything fades.

Table 2.5 illustrates the distribution of the coding in Stage Five.

Table 2.5 Distribution of stage five coding

Public or Private Code	Number of segments: Target of Magical Behavior				Totals	%
	Individual	Kin Group	Religious Group	Outside Group		
P1	26	6	2	1	35	20%
P2	33	7	1	2	43	24%
P3	16	11	1	0	28	16%
P4	34	4	26	1	65	37%
P5	1	0	1	4	6	3%
Totals	110	28	31	8	177	100.0%
%	62%	16%	17.5%	4.5%	100.0%	

Figure 2.3 Comparing stage five coding



At the end of stage five of coding, comparison was done using the same divisions described in stage four coding to test for overstating segments allocated to each type of public or private condition. Separated into the various public and private conditions, all coded segments ($N=177$) were compared with only first-hand accounts ($N=144$), only interview data ($N=128$), and only one instance of each public or private condition in each document (i.e. 32 documents multiplied by five different types of conditions: P1, P2, P3, P4 or P5 = 160 total possible instances) ($N=112$). No statistical differences between the differing subsets of coding were found, $\chi^2 (12, N = 563) = 7.478, p = 0.824$; this is illustrated in Figure 2.3. Thus for purposes of future analysis all segments of text identifying magical behaviors ($N = 177$) were used.

All coded data were downloaded from MaxQDA and analyzed using Microsoft Excel's Pivot Table function.

Because of the minimal number of data points in the P5 condition, that is where communication of magical behaviors extends beyond the religious group to other groups ($N = 6$), P5 data were conflated with P4 (where communication was shared with the entire religious group). This new condition is hereafter referred to as P4/P5.

And finally because of the minimal number of data points for magical behaviors targeted towards outside the religious group ($N = 8$), group targeted behaviors and inter-group targeted magical behaviors were conflated into one target category entitled Group.

After all stages of coding were completed, the final distribution of magical behaviors, their targets, and the public or private nature of the behavior was compiled. This is summarized in Table 2.6.

Table 2.6 Final analysis of magical behavior text segments after coding complete

Public or Private Code	Number of segments: Target of Magical Behavior			Totals	%
	Individual	Kin	Group		
P1	26	6	3	35	20%
P2	33	7	3	43	24%
P3	16	11	1	28	16%
P4/P5	35	4	32	71	40%
Totals	110	28	39	177	100%
%	62%	16%	22%	100%	

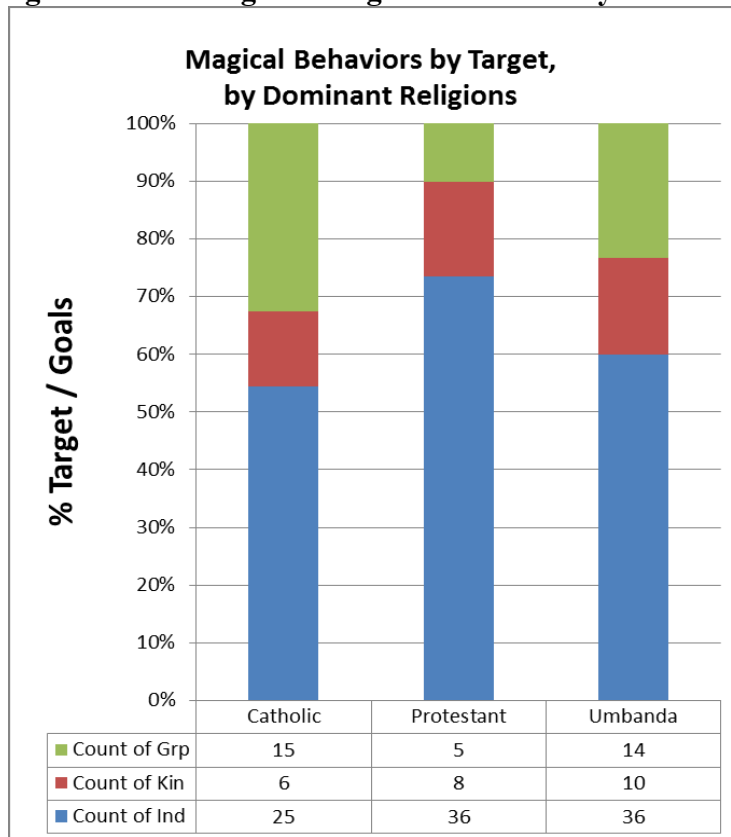
Analysis

Testing Hypothesis 1 (H1)

In support of H1, the results of all coding illustrated in Table 2.6, indicate that when people use magical behavior they do so primarily, or 78% of the time, to address individual (62%) or immediate kin (16%) related concerns. Analysis of the magical behavior target data between dominant religious groups, Catholic, Protestant and Umbanda, indicated similar findings and no significant differences in the distribution, $\chi^2 (4, N = 155) = 7.261, p = 0.123$. These results are graphically illustrated in Figure 2.4. Results from Agnostics, Rosa Cruz, Spiritism and Jehovah's Witness' were excluded from this analysis due to the minimal discussion on these religions.

Thus one could conclude that across all the dominant religions represented in this sample, approximately 78% of magical behaviors are targeted at individual or immediate kin.

Figure 2.4 Target of magical behaviors by dominant religions



Testing Prediction PH1-1

In effort to test prediction PH1-1, that magic and divination are primarily practiced in private, away from the gaze of the group, stage five coding was included in the analysis. To recap the coding used in stage five, the following summary is provided:

- **P1 (Private-Private):** Individual alone in their own space

- **P2 (Private-Public):** Individual in public space but no one hears them, or no one understands, or no one sees them
- **P3 (Public-Private):** Communication is only heard by a select group of individuals (e.g. fellow kin or a religious elder)
- **P4/P5 (Public):** Communication shared with the entire group or communicated outside group

A chi-square goodness of fit and independence was performed to determine whether the targets of magical behavior were equally used in all public and privacy conditions (i.e. P1, P2, P3 or P4/P5). The relationship between these variables was significant, $X^2 (6, N = 177) = 47.487, p = <.01$. Individuals are more likely to use magical behavior to target themselves or their immediate kin, when either alone (P1 condition) or when no one saw, understood or heard them (P2 condition), or only when the communication was heard by a select group of individuals (P3 condition). The target of the magical behavior was not evenly distributed across all the conditions. Collectively 93% of magical behaviors in P1, P2 and P3 conditions targeted either the individual or their immediate kin. In P3 conditions, significantly more attention (40%) is directed at immediate kin, which is to be expected, because in P3 conditions communications can potentially be heard by fellow kin. Only in P4/P5 conditions are the group a significant target (45%) of magical behaviors. These results are graphically illustrated in Figure 2.5.

Figure 2.5 Target of magical behaviors in various public/private ponditions

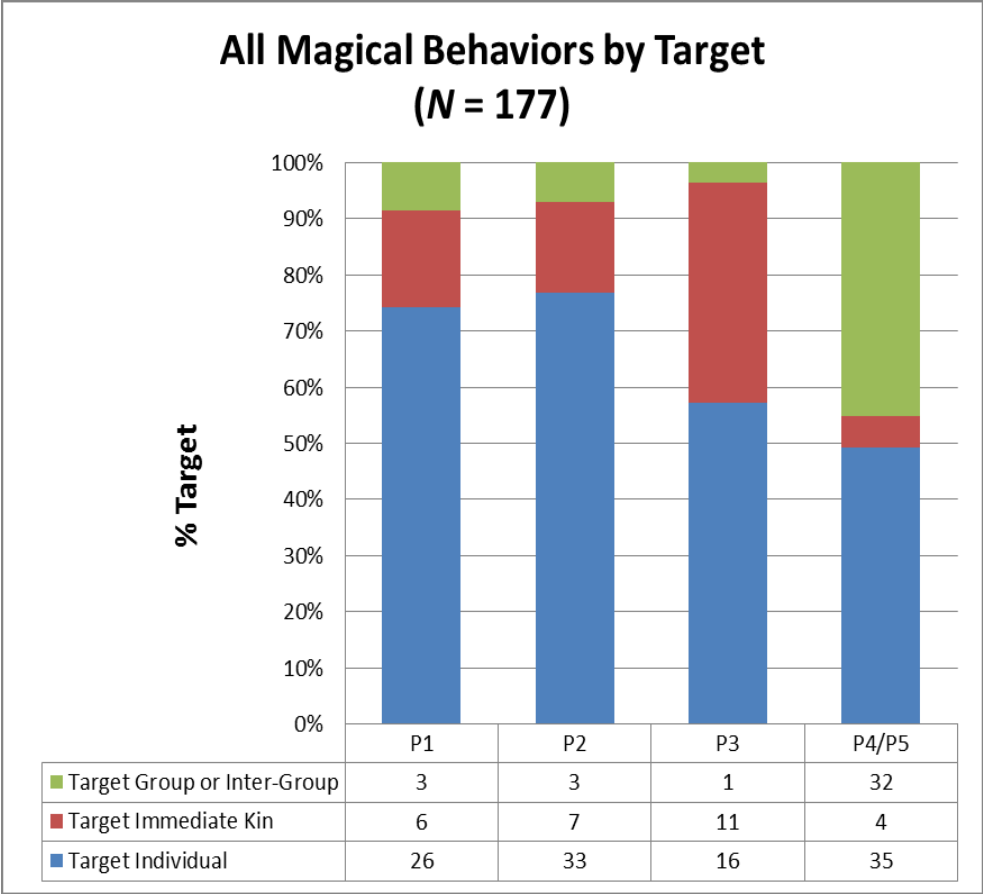
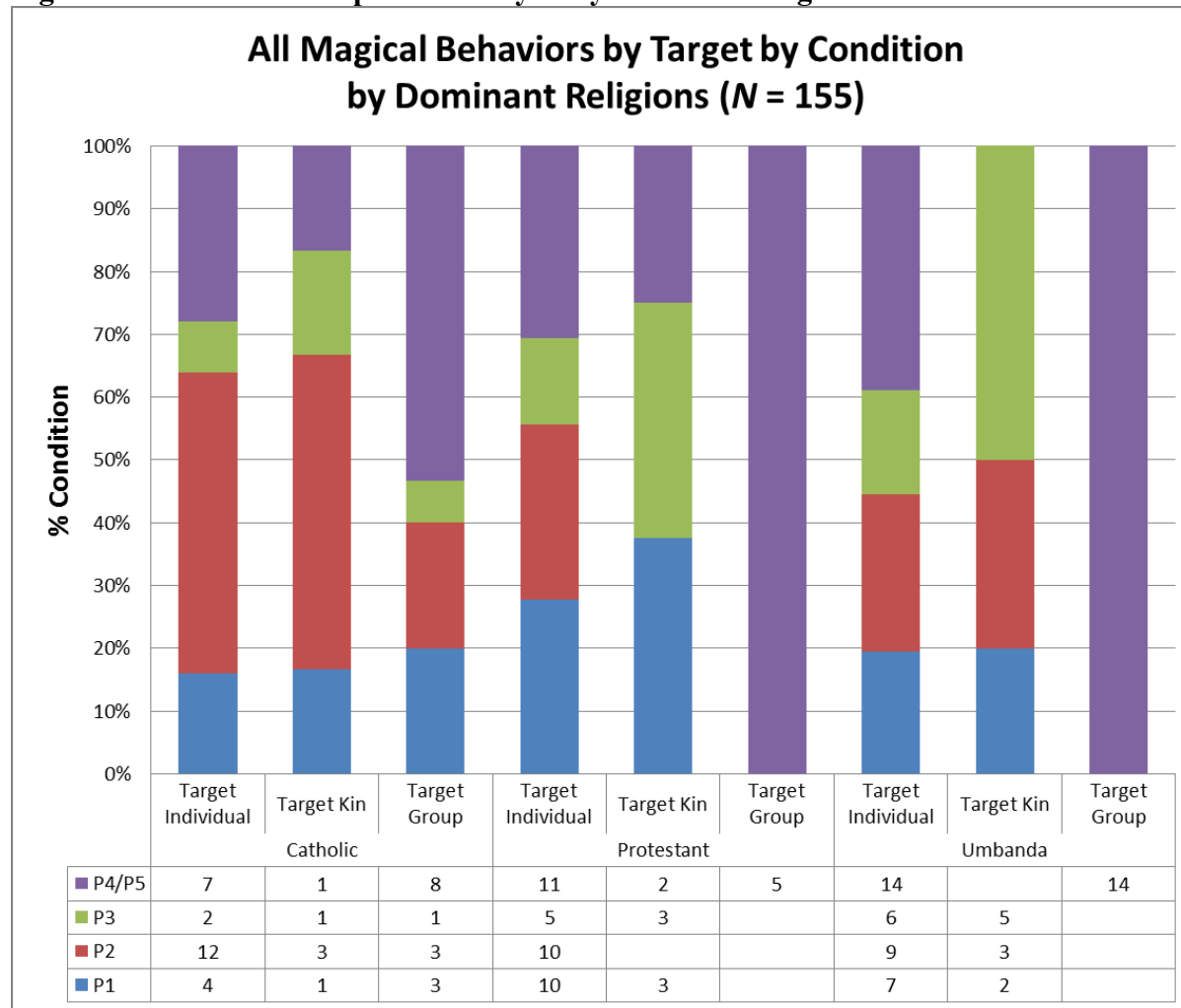


Figure 2.6 Public and private analysis by dominant religions



Similar analysis was performed, dividing by dominant religious categories. This analysis is illustrated in Figure 2.6. There are differences between religions and the targets of behavior in public/private conditions. When P1, P2 and P3 conditions were conflated (these are all private or semi-private conditions), it was demonstrated that Catholics differ from the other religions because they target individuals, kin and the group in all conditions. Specifically Catholics target individuals, their immediate kin and the group in private or semi-private conditions, whereas in these conditions Protestants and Umbandistas only target either individuals or kin, $Yates X^2 (4, N = 93) = 12.575, p = 0.013$. Furthermore Protestants and Umbandistas only target the group in the P4/P5 condition, Protestants Freeman-Halton $FE (2, N = 49) = 6.563, p = 0.007$ and Umbandistas $X^2 (2, N = 60) = 21.495, p > 0.01$.

Discussion

Firstly, it should be noted that just because the data do not include a behavior, it does not mean that it does not exist.

The data do support the hypothesis (H1) that people use magical behaviors primarily for personal or immediate kin related needs, and reject both H2 and the null hypothesis (H0). In this data set, the majority, or 78%, of all magical practices were targeted at either the individual or their kin members. Furthermore, in P1, P2 and P3 conditions 93% ($N = 99/106$) of all magical behaviors targeted either the individual or their immediate kin. Conversely only seven percent ($N = 7/106$) targeted the group in these same private or semi-private conditions. This is illustrated in Table 2.7. These

data indicate that the majority of people do not target magical behavior at the group in private or semi-private conditions (i.e. conditions P1, P2 and P3).

In a P1 condition only one individual, a non-practicing Catholic and self-proclaimed agnostic mentioned that he prayed for the people outside his immediate religious group.

my mother is Catholic and my father, he used to be as well... and I went to Sunday School. But I pray every day, I ask, I thank, I... but I try to help people, especially old people. Children, there are a lot people already helping children... but old people are a bit forgotten. And I try to help them.

CML: When you say you pray, what do you pray for?

For my son, for my health, for my mother, for... ummm. to protect myself, and to thank... thank... always thank... I have a good health, I am happy, I have a good job, I have friends, so I am just saying thanks... that's all. My whole family was Catholic. [long pause]

Although this interviewee also prayed for himself and his kin (son and mother), he also mentions that he prays for “old people”. This was the only instance in the data where group concerns, in this case “old people”, addressed in private-private (P1) prayer.

Table 2.7 Majority of magical behaviors practiced in private or semi-private conditions target individuals or their immediate kin

Public or Private Code	Number of segments: Target of Magical Behavior			Totals	%
	Individual	Kin	Group		
P1	26	6	3	35	20%
P2	33	7	3	43	24%
P3	16	11	1	28	16%
P4/P5	35	4	32	71	40%
Totals	110	28	39	177	100%
%	62%	16%	22%	100%	

In a P4/P5 condition (public), magical behaviors targeted to the group were reported by all religions. Specifically Jehovah's Witness' reported prayers that were directed outside the group because as one interviewee asserted the time of reckoning was near.

We have got to a point where we have gone too far, we are killing ourselves and spoiling the earth to the point where human life will not be possible anymore. For example polluting everything, cutting down the trees, disseminating diseases all around the world—different ones, strong ones—and there are studies or scientists, I don't have to tell you this! You see it on TV. It is all going to chaos at some point. But the Bible says that Jehovah will not let this happen, and let human being spoil everything that he created. He is going to say "stop everything!" "I am in charge now!" I believe that that is going very soon.

We know at this time there are people that won't believe, because of the system, because the government is not from Jehovah. That's why we see suffering, people eager for food, so many inequalities, and people with a lot and others with a little... nothing to eat, no place to live... that's why we know that soon it will come; a new government will be established. So that's why I believe. It is why we pray, and I really try to do what Jesus said.

The Jehovah's Witnesses however are a minority religion. In P1, P2, P3 and P4/P5 conditions Catholics prayed for "wars in the Middle East" and sometimes "poor people in other countries"; again, this was minimal mention, in a similar vein to the interviewee who prayed for "old people". In every case this was a positive endeavor. It should be mentioned that other religiously mandated behaviors that do not rely on magical behavior such as tithing and charity, self-help groups based on religious doctrine and missions, were often used by all religions to target either the group and/or inter-group. No instance of publically practiced, magical behaviors targeted towards outside groups was found in either the Protestant or Afro-Brazilian religions.

Overall, the data support the hypothesis that magical behaviors are primarily used for individual and kin related concerns. Furthermore, one could hypothesize that the Catholics are more altruistic or group oriented in their magical behaviors because they are the only religion in this dataset that targeted positive magical behavior to the group in all conditions, both publically and privately. More data would be needed to test this hypothesis.

Privatizing the Public (Conditions P2 and P3)

As previously noted, public and private is not a clear cut dichotomy. In this section I will further analyze individual and kin targeted behaviors in the P2 and P3 condition, and speculate on how the group may control the individual to its own benefit. The logic of MLS suggests that the interacting layers may be in direct competition and may evolve adaptive strategies to maximize fitness or overall reproductive success. I propose that the strategy adopted by the group, in the form of rules and norms, impacts individual behavior. These data indicate that 38% ($N = 67/177$) of individual or immediate kin targeted magical behaviors were practiced in public spaces, but I contend that these were actually private events. ‘Private’ in that the communication of the individual was controlled or suppressed by the norms of the religion (conditions P2 and P3).

For example, in Catholic meetings, the individual may pray in a public space but Catholic religious norms dictate that they pray in silence. Their message is not communicated with others in their group. In order to verbalize individual concerns

Catholics are either directed to a specific self-help group, or a confessional booth; both P3 conditions.

Protestants adopted a different strategy. In some Protestant meetings, although an individual is targeting their prayer at personal or kin related needs or desires within a public space, their specific individual concerns are never heard actually heard by the entire group. Several differing mechanisms were used. They could be directed to a specific private “worship ministry room” if one had an “outpouring” or “spiritual request” (P3 condition). Or they could be speaking in tongues, or drowned out by an ecstatically worshipping, dancing and singing crowd (P2 condition). Thus although the person has the opportunity to target individual or kin in a public space, most of the other people in the public setting will not hear them. This following vignette illustrates my impression of the environment at one of these meetings.

Once everyone sat down after the hymn, the Communicator (religious leader) started to speak. At first his voice was normal and controlled, but after just a few minutes he broke into a red face sweat and started to slam his fists on the pulpit and wave his arms in a heated and animated fashion. He changed the tone, pitch, volume and pace of his communication many times. During this presentation, which lasted about thirty minutes, the noise level in the hall was deafening—people all over the hall were speaking in spirit language or responding to the sermon with affirmations or appreciation. The Communicator seemed to go through three cycles in his presentation, each cycle getting louder and more animated... and with this the crowd got louder and more animated. The noise was so loud I felt extreme pressure in my chest; the same kind of pressure that one feels when a car with maximum bass level volume pulls up alongside you at the stop lights. The energy in the room was palpable and I felt a little frightened that people could be invigorated, energized and persuaded to such fervor so easily. People remained seated with their arms in their laps or with the heads in their hands or in a praying position—but their voices were deafening. The communicator continued to deliver messages to the congregation allegedly aimed at specific spirit speak messages from people. My informant referred to these as miracles and

revelations. At times I could understand these messages, but when the Communicator became animated or spoke rapidly, sometimes in Spirit Speak language himself, I had difficulty comprehending his message. During this phase of the event, my informant did not translate for me or update me on the significance of the proceedings—she was extremely preoccupied with the messages of the Communicator. Many people in the crowd, both men and women, openly sobbed with their bodies shaking and straining as they gasped for breathe, and lost composure.

While this event was public and people had the opportunity to verbalize their individual concerns in a public space, the fever pitch of the emotion and noise in the room, and the use of spirit language, prohibited individuals from being aware of other individual's specific communications.

Another mechanism used to privatize the public space, is to channel individuals into smaller more secluded spaces for their individual emotional outpouring. For example in many of the Catholic establishments I visited, a small separate place away from the main hall, was provided for private prayer (see Figure 2.7 not drawn to scale).

In one of the large Umbanda centers I visited, the places where people placed offerings and demonstrated emotion was located at a very rear of the compound, away from the majority of the people, surrounded by trees and shrubbery. The following taken from my notes.

It was late in the evening. I walked out into the courtyard and undercover areas backing onto the main hall. The gardens were quite beautiful, under lit with colored lighting and designed with many private areas, nooks and water features. Towards the rear of the compound there were areas which contained statues and alters for placing offerings. Statues which included both Catholic and Candomblé saints and Orixás (Virgin Mary, Jesus, Aparacida, Saint George, Exú, Preto Velhos etc.) were intermingled with candles and offerings of bread, money, wine, beers, spirits, cigars, flowers and other miscellaneous items. Despite the fact that the halls and public areas were packed, there was very few people in these back areas. Respecting his privacy, from a distance, I observed

one man standing lighting several candles in one of these areas, and then kneeling and praying in front of the candles—tears were streaming down his face and he was obviously very distressed (see Figure 2.8).

Figure 2.7 Layout inside Catholic Church

Paróquia São João Batista de Macaé
(Saint John the Baptist Parish of Macaé)
Sábado 1800 (Missa com Crianças.)
D.O. 6/30/2012 1800 hrs.

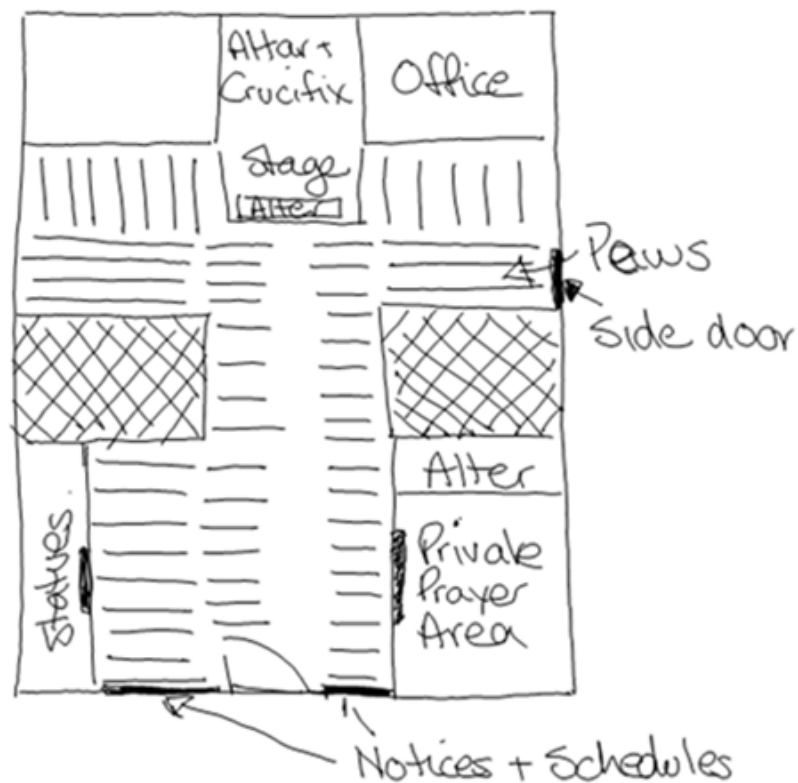


Figure 2.8 Man making offering at an Umbanda Center



Furthermore in Umbanda centers doors to the establishment were often locked making a public space temporarily private. This was noted on several occasions by interviewees and my own observations. In the following excerpt from an interview my interviewee describes the first time she went to an Umbanda festival.

I went to one with her... she always asks me to go – but the thing is – it is an all-night thing and I didn't want to be there all night. So we compromised on midnight. Up til midnight it was one series of things that you couldn't get out of once you were there, they locked the doors. At midnight, when there was a break, you could get out as they went onto the second aspect of whenever... So I was only at the first part.

Similarly in this sign (Figure 2.9) in Portuguese says on the days when consultations with the Preto Velhos and Passé (laying of Hands) are made, the doors will be locked, and will only be opened for five minutes on the half hour.

Figure 2.9 Signage noting locked doors



In the Umbanda and Spiritism religions, individual concerns were also sometimes addressed in a private consultation room, especially if it was spiritual surgery or passé (similar to laying on of the hands). More often individuals and kin groups were addressed in an intimate small group or one-on-one basis with trancing religious elders as illustrated in Figure 2.10.

Figure 2.10 Inside a large Centro Umbanda



Overall, when it came to voicing one's individual concerns in a public space, one of three things happened: the individual engaged in silent prayer; the individual engaged in ecstatic prayer where their voice, if they spoke in a language people could understand, was drowned out by fellow worshipers and music; or the individual was channeled to a special private one-on-one space. Collectively, I will call this privatizing of public space. Controlling how individual and kin related concerns are privatized and the potential rationale behind this practice will be discussed in more depth in Chapter III.

Rituals, Symbols and Exemplarily Behavior of Leaders

In support of the logic provided by MLS, in a P4/P5 condition 45% ($N=32/71$) of magical behaviors are targeted at the group; i.e. in a public group setting behaviors target the group. Similarly in the P3 condition, 39% ($N=11/28$) of behaviors targeted immediate kin; i.e. when immediate family members witnessed the behavior, the behavior targeted them. This could be the result of a causal relationship where individual targeted behaviors are practiced privately, and kin and group targeted behaviors are practiced publically; however it could simply be the kin group or the larger group working together towards a common goal.

Regardless of this reasoning, 55% ($N=39/71$) of the results in the P4/P5 condition appeared not to support PH1-1: that individual and kin targeted magical behaviors are primarily practiced in private. Overall, approximately 22% ($N=39/177$) of individual and kin targeted magical behavior was practiced in a P4/P5 condition. Further analysis of these behaviors is illustrated in Table 2.8.

This analysis demonstrates that many of the P4/P5 behaviors were rituals and often involved religious elders. These public rituals included public baptisms and/or washing away of an individual's sins, performing magical feats and miracles, and divining messages while exhibiting exemplarily rapturous or animated behavior. Not only do these ritual events target individual needs, but when practiced in public environment, I argue that they potentially provide creditability enhancing displays (CREDS) by "ratcheting up" commitment and create a "content bias" for practices within a group (Henrich 2009).

According to Henrich, CREDs arise when “the model” in this case the religious leader, whose “actions/displays would seem costly if he held beliefs different from those he expresses verbally.” Henrich also called them “inferentially potent displays” (2009). Within the realm of some religions, one of the most inferentially potent threats is that one will be lured by evil, the devil, Satan, Lucifer or the dark side.

Table 2.8 Distribution of P4/P5 individual and kin targeted coding

Religion	Type of Behavior	Count of Individual	Count of Kin
Catholic	Amulets, Rosaries, Statues & Symbols	3	1
	Baptism / Holy Communion	3	
	Pray / meditate	2	
Catholic Total		8	1
Jehovah's Witness	Baptism		1
Jehovah's Witness Total			1
Protestant	Baptism / Conversion / Born Again / Holy Communion	2	1
	Homeopathy - Oil / Bread & Cloth	2	
	Laying of hands & Miracles	3	1
	Prayer / meditation	1	
	Prophetic Revelations & Spirit Possession	3	
Protestant Total		11	2
Spiritism	Energy flow (chi)	1	
	Homeopathy Teas Tinctures Crystals & Candles	1	
Spiritism Total		2	
Umbanda	Amulets, Rosaries, Statues & Symbols	1	
	Homeopathy Teas Tinctures Crystals & Candles	2	
	Offerings	9	
	Spirit Writing	2	
Umbanda Total		14	
Grand Total		35	4

Performing a lexical search for ‘evil’, ‘devil’, ‘Satan’, ‘Lucifer’ within the data found a correlation between these terms and the religions where these rapturous displays are often practiced. These terms were used a total of 47 times in 15 separate documents

within the data. Analysis at document level found the distribution of these comments to be divided between the Protestant religion 40% (6/15), Umbanda and Candomblé 53.3% (8/15) and Catholic 6.67% (1/15), *Fisher's Exact* (2, $N=15$) = 5.2, $p=0.074$. However at a text segment level the distribution was Protestant religion 36.2% (17/47), Umbanda and Candomblé 59.6% (28/47) and Catholic 4.26% (2/47). This finding is significant, *Fisher's Exact* (2, $N=47$) = 21.745, $p<.01$, and indicates that threats of evil interaction are used more in some religions than others. This is an area of potential future research. I hypothesize that threats of evil or devil interaction in day-to-day life (and not just at life end) could be positively correlated to “inferentially potent displays” in the form of rapturous fervor of the leaders and practitioners.

The remainder of the public leader behavior directed at individuals could be divided into three different types of groups. The first group included the laying on of hands, performing miracles or spiritual surgeries on individuals (such as curing cancer). The second group involved divining messages from the supernatural to no specific person in the audience, although someone always felt the message was targeted directly at them. And the third group, especially in the case of Pentecostal leaders, exhibiting exemplary rapturous and ecstatic type behavior, such as making guttural sounds and uncontrolled jerks of the face and body. As well as serving as exemplary models for behavioral norms to the audience, because some of these events were public and sometimes televised, they also served as public advertisements or CREDs for the power of the magical behavior. In turn this advertising could also “ratchet up” commitment by attracting new adherents. This is an area further explored in Chapter III where people

change their religion because they have, among other reasons, an impending life crisis and the need for immediate personal miracles or answers.

Another group of the P4/P5 behaviors included the use of amulets and icons. In Catholicism and Afro-Brazilian religions idols and amulets in the form of rosaries, crucifixes and medallions are used extensively. Each of these symbols is often connected to a guiding spirit or saint, and thus these ‘idols’ are deemed as a form of sympathetic magic because they provide protection and guidance from the depicted spirit or deity to the wearer or user. In my field notes, one of the most ubiquitous uses for this form of behavior I observed was the use of rosaries and crucifixes hung on the rear vision mirror of cars (see Figure 2.11). When I informally asked people about this use, most people replied that it was a form of protection.

Because of the syncretic and historically oppressed nature of the Afro-Brazilian religions, many of the symbols (and by extension the Saints) used by the Catholic Church have been adopted and are used publically by Afro-Brazilian practitioners, but clandestinely symbolize non-Catholic beliefs. This was explained to me on numerous occasions.

...this kind of religion came from Africa... with the slaves in Brazil. And ummm... most of the time they could not show their religion to the white people because it is... you know Africa is a bit behind in their routines and religions... so they used to use a Catholic name of a saint to match with their saints. For instance: Saint George is Ogum (Afro-Brazilian Orixá or deity)... they used the Catholic images, but it represents their gods as well... their Orixá. (Catholic)

Figure 2.11 Rosaries and crucifixes hanging from rear-vision mirrors on cars as form of protection through sympathetic magic, and overt symbolism of majority group membership



They use the same Saint. I mean, here in Image#1 (Catholicism) the saint has one name and here in Image#3(Umbanda) it has another name. Let's say that here in the Catholic Church they love St. George, they say São Jorge Guerreiro. The same St. George, here is Ogun. So we see the two together, which is why so many people say, Catholics are also Macumbeiros (Evangelical)

In Figure 2.12 one of the few interviewees who openly declared himself as a follower of Umbanda proudly displays a medallion of Catholic Saint George, who he calls “his guy, Ogun”.

In the following excerpt another interviewee, whose father was also an Umbandista, discusses how some people use Catholic religion symbolism as a symbol of majority group membership, while internally believing something else.

As soon as I saw this picture I remembered my grandma, she has passed away... she was very Catholic... she used the *terço* (rosary)... just like this. I have a *terço* that she gave me, here in my bag. I carry it with me all the time—why?—Because my grandma gave it to me and it is a kind of protection and I feel safe. I like to have it - it makes me feel better, more comfortable.

A lot of people wear them on their necks because, you know, they use it walk like this (makes a showy type of motion), and conversely, there are people that carry because they believe. I remember my father carries in his wallet a picture of an old black (Preto Velhos)... my father has a very good connection with him... he protects him, this is Umbanda.

Figure 2.12 Afro-Brazilian religious adherent displaying medallion of Saint George / Ogun



This overt adoption of Catholic symbolism by out group members (Afro-Brazilian religious practitioners) provides an excellent cultural example of the “green beard” or faker successfully infiltrating the dominant majority (Hamilton 1964; Dawkins 1976). However, as noted by my Evangelical interviewee, the tides are turning, the icon is no longer perceived to be a true symbol of religious affiliation, and now the Catholics are being labeled as *Macumbeiros*.

In addition to amulets, the Afro-Brazilian groups also use symbols called *Pontos Riscados* (Risked Points); a form of sympathetic magic. Each one of these unique magical symbols, represents the signature of one of the deities in the Afro-Brazilian Pantheon, and if drawn, summons that deity. On several occasions I witnessed trancing mediums at Umbanda and Candomblé events drawing these symbols on the ground, often in chalk or in sand. In public spaces outside of Umbanda or Candomblé meeting places, often these symbols are only known to practitioners and can easily be missed. I only started to see these symbols in the field once I knew they existed and purposefully started looking for them. Often they were very temporary in nature and drawn in the dirt or in the sand. In Figure 2.13 this white circular symbol placed on a temporary construction site wall near the ocean, is a *ponto riscado* for Yemanjá, Orixá of the ocean and protector of children. Like most graffiti, it appeared in the middle of the night by unseen artists. This public magical symbol was drawn to evoke Yemanjá for an unknown reason.

As well as being called by their *ponto riscado* the deities of Umbanda and Candomblé are said to be tempted by *oferendas* or offerings. These offerings, often

made secretly under the cover of darkness in the middle of the night (which again is a form of privatizing a public space) are placed in hope of magical intervention in the practitioner's life.

Figure 2.13 *Ponto riscado* for Yemanjá



Oferendas come in all shapes and sizes, ranging from a simple candle at the base of a tree, to a large basket filled with fruit, alcohol and sacrificed animals. As artifacts of clandestine public behavior, often targeted at individuals and kin members, these oferendas are extremely interesting cultural phenomena. As such, oferendas are the subject matter of Chapter IV.

In this section, the counterintuitive results of Table 2.7 which indicated that 22% of magical behaviors targeted at individuals and kin were practiced publically have been further analyzed. While the initial findings appeared to not support prediction PH1-1, additional investigation into this category of behaviors reveals that many of the public magical behaviors with individual or kin targets, are actually practiced privately: either silently in contemplative prayer, in loud and emotionally charged environments where the individual voice is muffled or not understood, in separated privatized spaces, or secretly under the cover of darkness. Conversely those magical behaviors that are witnessed communally, potentially serve greater group purpose in the form of “CREDS” and “inferentially potent displays” (Henrich 2009).

Differing Vtypes of Behavior

The data also illustrated that accepted types of magical practices did differ depending on the religion. During stage three of the coding, specific segments of text identified some magical behaviors that are not practiced or are even forbidden within some religions. For example, many of the Protestant meeting places, and especially the Evangelicals and Pentecostals, are devoid of any visible crucifixes or other religious icons or paraphernalia. Idols, crucifixes and statues of saints and deities are often perceived as a form of imitative magic. At Pentecostal meeting places the only internal signage included a short phrase painted on the walls.

“Em Nome do Senhor Jesus” (in the name of Jesus) in large letters over the pulpit (Congregação Cristã no Brasil: *Christian Congregation of Brazil*)

“O bom pastor dá a vida pelas ovelhas” (The good shepherd lays down his life for the sheep) (Igreja Mundial do Poder de Deus: *World Church of the Power of God*)

Above the stage were three clear Perspex signs, each containing the words “Your word is Truth: John 17:17” in three different languages: English, Spanish and Portuguese (Testemunhas de Jeová : *Kingdom Hall of the Jehovah Witnesses*)

Scenes inside these places of worship were completely different from the overt and rich religious symbolism and signage used in Catholic Churches (Figure 2.14) and Afro-Brazilian temples and houses (Figure 2.10). Most Protestant churches were starkly decorated with white painted walls and little or no ornamentation.

Figure 2.14 Altar in St John the Baptist Catholic Church, Macaé Brazil



The doctrine of many of the Protestant religions specifically prohibit the use of idols, statues and the like. This was explained to me on more than one occasion.

there's a statement in the Bible to not use idols or images or whatever. But... ummm... worshipping these kinds of things can be called an idol. We don't use such methods. It's more like, of course you can worship, no pray, without using the rosary.... ummm... God can hear you (G3, Evangelical)

And another thing, in reading the word God, the Lord, he says we should not build statues made for us by the hands of men ... because he is our Creator, then we must worship him in spirit and in fact, in our hearts. After I read and I learned this ... when I go to the Catholic Church I see a lot of pictures and statues... this is wrong (G4, Pentecostal)

Specifically some pointed to the passage in the Bible where it is “necessity to abstain from things sacrificed to idols, from blood, strangled and fornication, as shown by the Holy Spirit in the Assembly of Jerusalem” (Acts 15:28-29, 16:4 and 21:25). Despite the fact that Catholics and Afro-Brazilians use idols, both Catholics and Protestants deferred from making material offerings or sacrifices to appease the Gods. Instead some would make personal bargains, for example,

When people pray they usually pray for personal needs... maybe they are praying for someone else's benefit... people in their family, a relative of a son or daughter. Maybe it's for someone's salvation or for someone to be cured from some type of disease. People do that a lot in these churches... people might be making a bargain in exchange for something. For example, there is a church in Rio de Janeiro that has a lot of stairs, Nossa Senhora da Penha; they say that they are going to go on their knees all the way up if they get the blessing. If they are going to do something good for someone else, they usually make a bargain and promise to do something... they usually do it for a parent (G2).

Taking into account those things specifically forbidden, categories of magical behaviors within each religion was collated. This is summarized in Table 2.9.

Table 2.9 Magical behaviors by religion

Magical Behavior	Catholic	Protestant	Afro-Brazilian
Prayer or meditation	Yes	Yes	Yes
Bargains with the Gods	Yes	Yes (not Jehovah's Witness)	Yes
Materials offerings to the Supernatural (not Tithing)	No	No	Yes
Miracles and miraculous events	Minor	Yes	Yes
Baptism, Holy Communion or Eucharist, Confession, Born Again	Yes	Yes	No
Contagious Magic: Crucifix, Rosary, Amulets, Candles etc.	Yes	No	Yes
Supportive Guiding Spirits or Saints (e.g. Mary or Saint George)	Yes	No	Yes
Homeopathic Magic: Teas, Herbs, Oils etc.	No	Yes (not Baptist)	Yes
Laying on of Hands (Healing touch), spiritual surgeries or Chi-like energy flow	No	Yes (not Baptist)	Yes
Signs, omens, promptings and visions	No	Yes (not Baptist)	Yes
Frequent Prophetic Revelations by Leaders	No	Yes	No
Altered States of Consciousness	Not Normal	Yes	Yes

Table 2.9 illustrates that Catholics in general have a smaller pool of magical behaviors to draw on; however this is not to say that they do not use each of these behaviors more extensively. This could indicate that within the realm of religious

behaviors Catholics and Protestants use many other (non-magical) religious behaviors. This is a topic that will be explored more in Chapter III.

The use of prayer or meditation was found in all religions encountered during the field work. Making non-material bargains with the Gods during private prayer was found in most religions; however Afro-Brazilian Religious practitioners sometimes gave material offerings; this phenomenon is discussed more in Chapter IV. In all religions interviewees described miraculous personal events, mainly health related, like those performed by G3's husband in the opening vignette in this chapter; however in Catholicism these miraculous events were very minor, for example, unlocking a locked door with the wrong key.

Both Catholics and Protestants have public ritualized forms of communion and absolution of sins in the form of Holy Communion or Baptism. The main difference between being that Protestants believe that baptism should be a conscious and informed choice, rather than a *fait accompli*. Most Catholics told me they were baptized when they were born, or shortly thereafter. In one Pentecostal congregation it was explained to me that a person "could only be baptized after fifteen years of attendance in the cult". My interviewee had been baptized when he was seventeen, but felt this was too early.

As previously noted the use of amulets and idols is not practiced in many Protestant religions. Baptists, for example, did use the symbol of the cross, but it was not adorned with a crucified bloodied body (as illustrated in Figure 2.14).

The remaining magically based behaviors, including the use of homeopathic or sympathetic magic, laying on of hands, spiritual surgeries or Chi-like energy flow, signs,

omens, promptings and visions, prophetic revelations by leaders and altered states of consciousness were not found to be practiced by Catholics. In this study, altered states of consciousness are any state of mind that differs from normal day-to-day waking state of mind and includes rapturous worship, trancing, spirit writing, lucid dreaming, speaking in tongues (Glossolalia), and spirit or deity possession. These types of behaviors, although normal and common place in some religious establishments, would be either forbidden or discouraged within the Catholic Churches I attended.

Using the logic of MLS, why they are dissuaded and controlled will be discussed in greater length in Chapter III.

Conclusion

In this chapter data were presented to test H1, H2 and H0. These data strongly suggest magical behavior is primarily used to meet the needs of individuals and their kin. Additionally, magical behaviors are primarily practiced in private, even if practiced in public spaces, a concept I will call privatizing the public space. Furthermore, some types of magical behaviors are supported and sanctioned by the religious group, while others are disallowed. The data reject both H2 and the null hypothesis H0.

At the opening of this chapter we met G3. G3 personally received signs from God telling her to not marry her husband, but she went ahead with it anyway and the marriage turned out to be unsuccessful. When confronted with a personal life crisis, she went against the rules of her church, left everybody and created her own private space, and prayed to God for answers. She divorced her husband and was the target of other types of religious behavior that are not magical in basis: namely shunning and ostracism

in the community and fear of eternal damnation. Although a difficult situation for G3, she survived and found her own balance between her needs and those of the group. When viewed holistically using the logic of MLS, we see a strong rationale for the existence and survival of magical thinking in G3's case, which specifically caters to individual concerns, despite non-magical rules and behaviors that promote group cohesion.

Quantitative analysis of the data in this chapter opened up many doors for additional enquiry and exploration, some of which will be explored in the following chapters. As previously mentioned, the next chapter will further explore non-magical mechanisms, norms and rules that some religions use to educate and maintain control over the group in effort to regulate how individual and kin related concerns are communicated. I will speculate on why they might do this by using the logic of MLS, and illustrate how some religions may be evolving in order to provide a better balance, by satisfying potentially selfish individual and kin needs within the altruistic group environment. Following this discussion I will present data that uncovers why people change their religion; especially if the religion does not respond or evolve fast enough to satisfy individual need.

CHAPTER III

CONFLICT, CHOICE, CHANGE AND CONVERSION

I can thank my grandfather for my religious upbringing. He was a banker and lived in a small house across the street from a Baptist church which he attended faithfully every Sunday. I spent a lot of time with my grandparents; my father was almost always gone in the military. Everything I learned about religion when I was young was due to the Sunday school and church... it started at 9am and went until 1pm every Sunday, and of course there was summer church camp. Well, not a camp – it was held at the church but it ran for a month during the summer. I did not like going. I was young and I wanted to be outside and play, but it did set up a good foundation for me for the years to come. I believe without that foundation when I was young, it is very unlikely that I would have gone to any church when I got older, much less an Evangelical church.

Why did I choose Evangelical when I was older instead of going to a Baptist church? There were not many Protestant Churches around me, and at that time in my life I was looking for something that got the emotions going a little more than a luke warm Baptist church. I wanted something that appeared to be a little more spiritual...

...

I became a very devout Evangelical. I was a deacon of the church. And... you know I mean, even in Christianity, there are so many different aspects, in Christianity of what right and what's wrong, and they were cutting it with a fine tooth comb, and [long pause] one church against another, and just its not worth it... it's just not right.

CML: What's a deacon?

Kind of like an officer of the church. They are the ones that help arrange things, or the ones that go to families when they are troubled, they are the ones who...[long pause]

CML: What was your role? Did you have a specific assignment?

No, only to support the pastor, and the goal was families; the goal was try and bring families into the church, go and visit families... sit down and talk and pray, discover their problems.

CML: Was that a good thing?

It is...you know...it was good. What's interesting though is... [long pause] I think the thing that kinda turned me against that is ... I was a significant tither in the church, I was making a lot of money [clears his throat] contributing 10% of my gross earnings to the church... and ummm... and then I got, ahhhhh, laid off and unemployed... and lost my house, and had trouble feeding the kids and things like that... And... ummm... the attitude of the church changed quite a bit – from the Pastor on down. So I... [long pause] started believing now it's not a church, it's not the gathering, it's not the people, you know, it's not the community that important... what's important is what is inside you and how you feel towards an omnipresent being... if there is one.... [long pause]

...

I'm in a situation now... [long pause]... I couldn't feel good about going to a church, and sitting in a church... and be pretending to believe in all of those things that I used to believe in, and be in the situation that I am in right now.

CML: I find that really strange and counterintuitive... because a lot of people when they get really down in their luck, they turn to the church, but instead you developed your own philosophy.

Yeah, I don't need, I don't need the.... ummm.... I don't need the church to tell me what's right and wrong. And I know if something is wrong, I know that I acted in a way that was accountable for those actions... but I don't.... I don't want to be part of a group, a religious group... it's not where I want to be right now

...ummmm....[long pause] I.... I don't think it's sincere. People when they go to church, they put on a face and say things to make everybody feel good..... I wouldn't say it's hypocritical, but it just, it just completely bores me. I don't know if that makes sense.... [long pause] I tried a few different religions... even Scientology when I was younger.... [long pause; he looks like he is going to start crying].

This excerpt from one of my interviews, F2, a fifty-nine year old male, exemplifies the subject matter of this chapter: choice, change, conflict and conversion. F2 explains how he was raised as a Protestant (Baptist) by his guardians, but chose in later life to become an active member of an Evangelical congregation. When confronted by a major life change that unexpectedly affected his standing in the Evangelical church,

he explains how he felt the “attitude of the church changed quite a bit – from the Pastor on down.” This resulted in a personal conflict between his individual needs and the functional adaptation, in the form of tithing, that meets the needs of the religious group. This presented a dilemma in F2’s life; a dilemma which was obviously a fraught or tough decision judging by the obvious sudden onset of pauses and “filled pauses,” such as ummm and arhhhh, in his rhetoric (Swerts 1998). These pauses and filled pauses are indications or signals that “hint,” amongst other things, “to difficulties in conceptualization at major discourse boundaries” (Chafe 1980). A discourse boundary is an invisible boundary between what people normally talk about, and what they do not normally talk about; or “the limits of acceptable speech” (Butler 1997). F2 and I crossed this boundary when he started to discuss this difficult and normally very private subject matter, and conveyed how he struggled to find an acceptable balance and redefine his own personal definition of religion.

In the previous chapter I presented data that indicated that magical behaviors are primarily used to target individual and kin related concerns, and how these behaviors are normally practiced in private. Private does not necessarily mean alone. These private behaviors and communications could potentially be in a public setting and silenced as a result of group religious norms: for example, it is customary to pray in silence in the Catholic Church. I suspect that these group religious norms that silence individual communications are actually group adaptations; group adaptations that control the individual. By inference, this suggests that there is potentially a dynamic relationship

between the psychological or sociological needs of the individual, and the functional needs of the larger religious group.

In F2's case, this dynamism occurred in two episodes in his life. In the first instance his individual needs were different to the religious norms of his group; as a younger man he needed a church that "got the emotions going a bit" and was "a little more spiritual." In the second instance, after the loss of his livelihood, he decided that he "didn't want to be part of the group" and that it was "not the community that was important." Conversely, it appears that his church changed their attitude to him when their needs, the income from his tithing contributions, were not being met.

What to Expect in this Chapter

In this chapter, using ethnographic data from my fieldwork and informed by the logic of MLS, I will discuss both group and individual religious change and evolution and explore more of my predictions outlined in Chapter I. In Chapter II data were presented that support prediction PH1-1 that magical behaviors are primarily practiced in private or semi-private controlled conditions. I argue that the creation of the semi-private controlled condition is one adaptive strategy adopted by the group. Group mandated norms for individual modes of communication could be strategies that the group has adopted to control the individual. These controlling adaptive strategies in turn promote group unity and allegiance, but may curtail individual behaviors. Alternatively the group may change or reevaluate norms in order to appease unsatisfied individual needs within a larger group. The group may sanction some initiatives, by either renaming the behavior or changing their rules and mandates. For example: change their stance on

homosexuality, divorce or contraception; or rename some magic as miraculous, or rename and sanction some magical behavior as prayer.

Conversely PH1-2 predicts that when conflict occurs between the individual needs and the group's strategy, the individual may undertake non-group sanctioned initiatives, and will depart from group mandated strategy to achieve these needs. For example, claim to have received a divine revelation from God stating that divorce, in their case, was an acceptable option. Furthermore given the option, the individual may change their religious group affiliation all together.

These predictions will be explored, and not quantitatively tested, through interpretation of qualitative data. The overarching rationale adopted is that these religious behavioral changes result because there are conflicts between the individual, and the religious groups functional requirements – or, put simply, tension between the levels in the MLS hierarchy.

In order to lay the ground work for the chapter I will first discuss the difficulty in crossing the discourse boundary and documenting what people really do. In Brazil it is widely reported that the vast majority of people are Catholic; the 2000 Brazilian Census reported that 73.6% of Brazil's population was Catholic; however by 2010 that percentage had decreased to only 64.6% (Instituto Brasileiro de Geografia e Estatística 2010). It is clear that Catholic membership is declining. But why is it declining, and are these figures reliable? I present data that what people say they do, and what they actually do is sometimes different.

Secondly, in order to explore the deductions of PH1-1, I will discuss some religious mechanisms or adaptations that might be used to try to keep individuals in the religion and maintain group membership. Functional mechanisms, or “culturally transmitted values, beliefs and institutions” that maintain and replicate group membership, are important as they decide whether the group or society will become “extinct” or “survive” (Soltis, Boyd, and Richerson 1995). I speculate that one of these mechanisms includes the perpetuation of negative stereotypes about the out-group (other religions); basically casting the other religious group in a bad light. I will then explore the public and private categories (i.e. P1...P5) established in Chapter II, and highlight some of the other adaptive mechanisms that I believe religious groups have adopted to either allow or control the way their members voice their personal concerns. This section will also provide examples of religions changing their own rules (or evolving) to maintain group membership.

Lastly, despite group mechanisms used to maintain membership, I will present data that challenges the widely held notion that most people inherit their religion from their parents. These data, indicate that there are numerous rationale and different heuristics a person might use to choose or change their religion. Based on interviews of individuals who have a different religion from their parents, I will discuss their rationales for change using decision making biases and heuristics (Richerson and Boyd 2005) together with the logic suggested by MLS.

Fitting In: “Everyone in Brazil is Born Catholic”

...in Brazil, when most people are born, they are born Catholic.
Like every child that is born is a supporter of Flamengo [soccer team],

everyone here is born Catholic. People say they are Catholic... but later you choose if you want to be Catholic, or Protestant. Most people say "I'm Catholic," but they never go to the church, they just say that. Even people who never go to the church, they say: "I'm Catholic, I'm Catholic" ... It's very powerful strategy. I think it is good, because we don't create conflict over religion... we don't care if you are Macumba, or Spiritismo, or Protestant... we don't make it into a big deal like they do in other countries where they go to the street, burning flags and killing people. We are very peaceful with religion... we are harmonious.... no problem with religion. We don't have that. (E1, forty-eight year old female Protestant/Evangelical)

I laughed when I first heard E1 say that "everyone in Brazil was born Catholic," just "like every child is born as a supporter of Flamengo the soccer team." But the underlying message is one of control, group conformity and trying to fit in with the perceived powerful majority. This concept is also referred to as "coercive harmony" (Nader 1996). Even though the outcome might be peace and harmony at a superficial level, it also could indicate the institutionalized control that the majority religion has in the country. Within the logic of MLS, this perceived in-group conformity and the resulting harmony is beneficial to the reputation of the group.

This concept can also be couched within the framework of 'ideal' versus the 'real'. The ideal versus real dichotomy is a concept introduced early in most introductory anthropological textbooks. 'Ideal' refers to concepts and behaviors that are publically embraced by members of society and 'real' behaviors being what they actually do. For example, a constitution may claim that 'all men are created equal,' but reality is entirely different. Furthermore, these real behaviors are sometimes denied, or practiced covertly, because they conflict with the ideal. Placing this within the MLS framework, it is interesting to note that ideal culture is often a "group phenomenon," whereas "real

culture is played out on an individual basis” (Naylor 1996). When combined, these two concepts, ‘coercive harmony’ and ‘the real versus ideal’ initially proved problematic; however, once overcome, the ‘real’ proved highly illuminating.

Getting to the Truth

In this study I interviewed twenty-two people with the objective of obtaining maximum diversity. Of those twenty-two individuals, thirteen (or 59%) initially immediately identified as Catholic. Thus despite my attempt to achieve maximum diversity, on the surface my sample appeared fairly representative of the Brazilian Census’ findings that 64.6% of the population are Catholic. This figure is the ‘ideal’ representation of the country’s religious demographic evoked by the dominant religious group. Brazilian scholars recognize that demographic census data are skewed by this historic domination (Silva 2007), but none the less these are the data reported globally (Instituto Brasileiro de Geografia e Estatística 2010). Several people explained this ‘ideal’ response to me:

I believe it is a convention; most parts of the world are Catholic and other religions, they (the Catholic Church) are afraid that so many others exist. Here in Brazil, only a small number of people go to Umbanda or Candomblé. They don’t declare that -- because there is a stigma -- people view this as a bad thing. Few people know what reality is. I know some people that go to Umbanda House, but they still go the Catholic Church to show everyone [in a sign song voice raising arms over his head] "no, I am Catholic! I am part of this big group!"

CML: Do you think that's a reason why when you first ask someone their religion, they say "Catholic" and then once you start talking to them they are something else?

Yes! And I guess that a lot of people that state that they are Catholic never go a church! I guess in reality they have no religion. But it is hard to assimilate in this society to say "I don’t have any religion" it's

easiest to say "Hey, I'm Catholic." Because I studied at Sunday School... or my mother was Catholic when I was born... or any reason" (O2).

O2 verbalized a commonly held sentiment: in Brazil, it is just easier to say you are Catholic. In terms of heuristics, this could simply be an "imitate the majority" "frequency dependent" "content bias," where the individual is biased towards Catholicism based on their perception of its frequency or proliferation within the population (Richerson and Boyd 2005). The following interview with T2 also highlights the problems of overcoming these biases which in turn potentially perpetuate situations of 'coercive harmony' and 'real versus ideal'.

I interviewed T2 at her new business venture: a small back alley bar and restaurant that is struggling to make it. With a lot of background noise and people coming and going, the setting was not perfect for an interview. None the less I was keen to get her opinions. I was introduced to T2 through a mutual friend, and learned from this same friend that T2 is currently/was a prostitute or 'bar girl' who is trying to change and make a better life for herself and her family. T2 is thirty-six and the mother of three sons who, due to dire financial circumstances, do not currently live with her. This exchange with T2 was, in part, quite typical of conversations I had with my field friends. The majority started by saying they were Catholic, and only after the conversation or interview progressed did they disclose what their real beliefs were. In this interview T2 vacillates in her opinions making it both difficult to understand, and difficult to discover her real beliefs.

CML: Religion is...

[fast response] Catholic!

CML: Do you go to church?

Always... when I can...maybe not always.... [pause]

CML: Why?

I like Evangelical.

CML: Do you have a church you go to?

Yes, Igreja Mundial [the Worldwide Church of God's Power; the same church she had seen me going to observe the previous day]. I like Mundial. ... but I like Baptist more...

CML: So... why did you say you were Catholic?

Because I was baptized in the Catholic Church, and my mother and father are Catholic.

CML: So you choose to not go to Catholic Church? Why?

Because it is more comfortable and easy for me. I like it... I changed about eight years ago. I like Baptist and Evangelical...[long pause]

CML: Why did you go there? Did someone take you?

I went alone.

CML: Is Evangelical and Baptist the same?

Yes. They are the same?

CML: How it is different from Catholic?

Catholic has restrictions on clothes, drinking... in the Catholic faith it is impossible to smoke, to go to bed [she smiles at me]. I know bad people that frequently go to the Catholic Church, they drink and smoke... but this is not living truthful.

...

CML: So how often do you go to church?

It has been a long time since I went.

CML: Why do you choose Evangelical over Catholic?

I like Evangelical; it stays in my heart. Because people have more respect for God, have more respect for the people... I don't frequent the Catholic Church... I like Evangelical... but I don't frequent it either....but it is easier for me.

CML: [I sense she is avoiding the question or doesn't want to answer]

...

CML:[showing Image 2] So when you see this image, what do you think?

... This is the Universal Church... I don't like it. Because they are about evil, people have spirit inside them and speak in languages I don't understand. I don't believe it.

CML: This is interesting to me, because you say you like Igreja Mundial. At Igreja Mundial the leader spoke in tongues.

I don't know. [pause] Also, I don't like it when the pastor or missionary puts his hands on the heads of the people and says "talk, talk, talk"... and they have been miraculously cured by the spirits!

CML: But I saw that at Igreja Mundial...

I don't like it. I don't believe it. I don't like it.

CML: But you just told me you liked Igreja Mundial... now you say you don't like the things they do there.

[She gets angry at me, raises her voice and speaks fast] I think ... nobody has ... For example: We have no power button on the head that enables you to manifest other things! We have no power like this! I think there is no person in the world with power like this, I do not believe it! Understand?

...

I don't like churches like this. I like a church that sings hymns, listens to the orations, reads the Bible, I like listening to the pastor talking good about things. Understand? No screaming, blah blah blah... I think this is the Universal Church... they do things that I don't like. [pause]

CML:[showing Image 3]

This is Spiritismo. We have a lot of this in Brazil... yes it is Spiritismo, popularly called Macumba. People believe in it. I believe in it!...but I do not do it. Never!

CML: Why do you think that people do it?

Some times for good, other times for bad. It depends, on the individual's thoughts and desires. I do not know if this is for good or bad. Many people do it for money, success, health... others do it to do bad things to other people. Understand? I don't know why; everyone has a different thing inside their heads... understand?

But, I have respect for it. Lots of respect

...

CML: How many times to you go to church?

This year, I have attended maybe twice, maybe two times...[pause]. In reality, I don't believe in any religion. I only go out of curiosity. I believe in God – but not any God.

CML: I have noticed that people in Brazil feel like they have to say they have a religion. Why do you think this is?

It's the culture. There is lots of finger pointing in Brazil: if you say you are Evangelical, or Spiritismo or Umbanda people think less of you, they think you are more inferior or lower class; if you say you are Catholic, people think it is better and it is much easier.

To clarify, in this interview, T2 started by saying she was Catholic, then said she preferred Evangelical and Baptist, then said she went to Pentecostal services, and then said she did not like or believe them, and then said although she did not practice Afro-Brazilian religion, she also believed and respected them, and finally confessed that she “didn't believe in any religion.”

Unveiling real beliefs or behaviors was not an easy or straightforward task, and is often confusing and takes persistence. Sometimes, as demonstrated by T2, her beliefs

about my beliefs affected her answers: for example, the way she said she liked *Igreja Mundial* only after she had witnessed me going there for a participant observation exercise. In retrospect, I cannot be sure my actions and responses did not impact my assessment of T2's answers: this is also known as the 'observer-expectancy effect' (Rosenthal 2005). In order to mitigate observer-expectancy I tried to stay as neutral as possible during the interview. Using images to elicit conversation was also helpful because our eyes were often focused on the images rather than looking at each other and reacting to non-verbal cues.

In addition to problems associated with the observer effect, the diversity, pluralistic and syncretic nature of religious beliefs can be incredibly convoluted and confusing. As noted by T2, she perceived Evangelical and Baptist religion to be the same. The syncretic nature of Brazilian religious behaviors has been explored extensively in other literature (Capone 2013; Brazil Ministry of External Relations 2013; Brown 1986; Smith and Prokopy 1999; Pinn, Finley, and Alexander 2009; Trost 2007; Brown 2012), and was often described by my interviewees. Brazilian scholars recognize that Demographic Census data is an "underestimate due to the historical motives leading people to be adherents of both Afro-Brazilian religions and Catholicism" (Silva 2007). T2 touched upon this where she told me that "this group of people [Image 3 = Afro-Brazilian religion] uses the same saints by different names than these people [Image 1 = Catholic].

Collectively, this interesting syncretism of two religions is a combination of Catholicism introduced during Portuguese colonialism and traditional Afro-Brazilian

religion, and is sometimes derogatively referred to as *Macumba* (Brazeal 2008). There are various degrees of mixing and borrowing beliefs and behaviors between these two religions as well as other many other religions including Protestant religions, Evangelical and Pentecostal, and Spiritism (Kardesism). Consequently religion comes in many guises, is perceived differently by different people, is given several different names, and cannot be captured in a ‘one-size-fits-all’ list of survey check boxes.

This type of ‘real’ information is difficult to obtain by using a survey instrument or checking a census box. Rapport building and understanding the complexity of behaviors (and undoubtedly persistence) is a prerequisite.

After my interviews were completed, statistics revealed that only two out of twenty-two individuals (9%) were practicing Catholic, while five out of twenty-two (23%) adopted a pluralistic stance: i.e. part Catholic and part something else. Sixty-nine percent (69%) of my sample were ‘some-thing’ else. Interestingly, every interviewee (100%), no matter their religion, race, age or socioeconomic status feared, or held reverence and ‘respected’ the power of Afro-Brazilian religions; this phenomena is explored more in Chapter IV. Overall these results are vastly different from my initial figures of 59% and the Brazilian Census data of 64.6% Catholicism.

The approximately 40% disparity potentially highlights the gap between the ideal and the real, and potentially indicates the influence the Catholic religion has over the populous. The following passage, taken from my field notes, demonstrates how great the influence is. In this vignette, I encounter two policemen who live and work in very close proximity to one another on a daily basis. During this exchange the limits of normal

conversation are pushed, the discourse boundary is breached, and a heated argument results when one of the policemen reveals that he practices the Afro-Brazilian religious tradition.

I wandered down the beach to get a breath of fresh air and see if any new Afro-Brazilian religious or *Macumba* offerings had been made. I also had some half-baked plans to approach the guys building the apartment complex – I suspected these guys are responsible for the frequent offerings I encounter on the beach. I was not disappointed; the beach was littered with burned candles, a paper plate full of sweet goodies, and a large pit dug in the sand containing numerous sweet potatoes.

The guys building the apartment complex (overlooking the beach) observed my every move from their half constructed seventh floor lookout; I felt guilty taking photos of their offerings. I know, that they know, that I know, it is them. I want to talk to them badly – but feared that I might be placing myself in a compromising position as a single woman among a group of unknown men in an isolated situation, or that I might not understand their colloquial language.

I wandered up the beach towards the kiosk and the police security guard shack, contemplating my next move... would I bite the bullet and go and talk to the building workers? As I was standing there wiping the sand from my feet and thinking, one of the two policemen, dressed a camouflage combat dress armed with gun and baton, smiled at me and said “bom dia” (good day). Never missing the opportunity for a conversation I approached him. After exchanging pleasantries and discussing the fact that they had both internet and TV, bunk beds and a refrigerator in their small 8’ x 8’ guard shack, I asked them what they knew about the offerings that I frequently encountered on the beach. Immediately they both said they knew nothing... and one even said he was ‘a-religious’. I probed some more and commented that I thought it was the guys building the apartment complex that were leaving all the offerings.

The first police officer I spoke to said “Yeah, they want bad things to happen to other people.” The second police officer, who up to now had said little, piped up and said: “No, you are wrong, people don’t always want bad things!” – With this he started drumming his hands on the counter and pacing back and forth uncomfortably. The first officer turned to me and said, “No it’s all Macumba!”

This started a heated exchange between the two. One policeman arguing that it was all Macumba and bad, and the second trying to explain to him the difference between the Afro-Brazilian religions of Umbanda, Candomblé, Quimbanda and Macumba... and asserting that it was not all bad. All through this exchange, the second policeman continued rhythmically and forcefully drumming his hands on the table top. Much of the conversation I did not understand... they spoke very fast... but it ended with them both laughing. I asked if they were still friends and the first policeman replied: “Of course, we just support different football teams!”

Finally, the drumming policeman looked up at me and asked why I was interested in this, and whether or not I believed the offerings were part of a ‘legitimate’ religion. I told him the reason for my academic interest and confirmed that I definitely thought it was a legitimate religion with origins in Africa. He smiled a very wide smile – his teeth looked huge and pearly white against his jet black skin – and he said very proudly: “I play the drums at the Umbanda temple!”

The first policeman looked up at me, smiled and said “I think you’ve found your Macumbeiro!”

The word *Macumbeiro* has dual meaning: the first is a commonly used derogatory term used to describe a practitioner or adherent of the widely misunderstood Afro-Brazilian religion; the second is the official given name of the drum player in the Afro-Brazilian religious meeting place (Brazeal 2008). As well as highlighting how difficult it is to get strangers to reveal their ‘real’ religious beliefs and practices, these field notes also demonstrate how people, who perhaps work and live together every day in close quarters, do not necessarily share or talk about their religious beliefs. Unless one is sure they are in a safe and supportive environment, when you reveal that you are going against the majority group beliefs you invite personal confrontation and conflict, and accusations of being an “inferior or lower class” (T2). This sentiment was echoed by another of my interviewees.

T1, a 46 year old male who described himself initially as Catholic, is a strong proponent of Umbanda. Umbanda is a syncretic religion which mixes elements from Afro-Brazilian religion, Kardec Spiritism and Catholicism. In the following excerpt from his interview transcript, one can clearly see the pluralistic (and at times conflicting) nature of his beliefs. He “puts his trust in God, but not as a religion,” “hates church,” likes the “good words” of the Bible, but “doesn’t need any book to keep him in line and tell him what to do.” In this excerpt he also talks about the “high price” one pays for not conforming to the hegemonic norm:

Religion is for me, it’s nothing, it is everything. When you believe in yourself, and I mean, you are good, you are fair, but you need to have something in what you must put your trust. I put my trust in God, but not as a religion. But because I think and I can feel something stronger than me, trying to guide me to the light, it's a strange.... because I hate church, and I don’t like to talk about religion.... but, sometimes I look at myself and say some prayers and talk with God... and I think it's a kind of religion - because I need to have something to believe, to trust. ...So, I am Catholic, like this [points to Image 1] but I am Umbanda, like this [points to Image 3].

CML: Why?

It is not coincidence that we are here talking with each other, speaking with each other... and exchanging these kinds of ideas.... it's because there are many things bigger than us. So this...this is God. It doesn’t mean that you’re Protestant, I am Catholic, or like Black Magic... but even when you have different religions, you still are the same person. It is inside yourself...It comes from the heart – straight from the heart. It's a high price you pay when you speak about it; speak about what you are really thinking. If you do [speak out], you are showing up your faults...there is a high price to pay for that. So that's why sometimes the people like to say that they love God, that they love church, that they feel stronger when they are together – there is a link – but you must be yourself.

CML: So when there is higher price to pay what do you mean?

A high price because what has happened (historically²), the most powerful religion is Catholic, so at times when you are in a society, some people... you don't like to talk about religion, some people they are very courageous – they say they don't believe in God, they don't have religion...[long pause]

Those guys are people that will pay a high price.... because to follow the train of thought of this society, we must... we must hide some things, or not say everything... to avoid clearly showing yourself up. You know. If you have... if you work for a company, and your boss believes in God, and another boss believes in God, and another boss believes in God, and you say I don't believe! You must be sure you'll pay a high price for that! – because you have shown up your ideas against theirs. That is what I am trying to say.

CML: So you are saying you must conform? Or you must not talk about it – to appear like you are part of the group. Is that what you are saying?

Yep!

CML: So you think that a lot of people don't talk about religion for that reason?

Exactly! I have some friends they like to attend church ceremonies and they like to stay together, they feel stronger when they are together... but when you are among them.... they like you... and they are trying to get you in. They say, "ayyyy, stay among us, be among us...we are speaking about God, we are talking about God full time, and we are talking about the Bible...the holy Bible..."

...

I believe in the holy Bible [he slaps his hand on his Bible which is sitting prominently positioned on top of the table], this is the holy Bible! I don't need any kind of book or guidelines to put me in line, but sometimes it is good to read good words. Or hear good words. Believe me - I don't know what is happening with me.... why do I have so many blessings? You know what I mean... so I am sure there are many things beyond me, over me, care about me, protect me, even when I say I don't like church and I don't like people. Sometimes I like to open the Bible and read some

² Historically, and even to a certain extent today, people in Brazil were harassed, persecuted and jailed for practicing their Afro-Brazilian religions. (Brown 1986)

sentences or compare my thoughts with the Bible's thoughts.... it is good enough to understand, but not so strong that it can pull me to the church and say, "Ayyyy, I'm one of you guys! I'm here!" I don't like to be deceitful. I am not dishonest. I am not disgusting. I am clean. I am just a simple guy... I was poor and I'm still poor – but not poor of spirit!

As well as demonstrating the sometimes confusing and syncretic nature of beliefs, one could conclude from this excerpt that T1 believes the high price that one pays for going against the majority beliefs: accusations of deceit, dishonesty, being a simpleton (unintelligent), uncleanness and poverty. These accusations about the 'other' or out-group, are some of the many stereotypes that an in-group (in this case the Catholics) perpetuate about the out-group. I suspect these stereotypes are one of several adaptive strategies adopted by groups to maintain group conformity.

Group Mechanisms to Keep the Faith

PH1-1: predicts that the group may adopt strategies to control the individual. Ensuring that individuals conform to group adaptive strategies in turn promotes group fitness, unity and allegiance. During the course of my fieldwork, I noted three different strategies the group adopted to maintain group conformity: pervasive stereotypes about 'the other', controlling how individuals voice concerns and personal needs, and finally changing group rules and norms to maintain membership.

Out-group Stereotypes

...it was a small town and so backwards. There was only one other temple of Protestants that we would sometimes get together with. There were also some Seventh Day Adventists... but we were not allowed to talk to them... We always thought they were the same as communists [laughs loudly]. They were the outsiders, they were the bad guys – I never even knew there was a difference between communists and Seventh Day Adventists – would you believe that – we were backwards, very, very backwards! [she laughs loudly] (C1)

Stereotypes are the “the contents of people’s beliefs about groups” and stereotyping is “the processes by which people, consciously or not, use their stereotypes to make sense of the world”(Allport 1954). The literature on stereotyping is extensive and interdisciplinary (Jussim and Rubinstein 2013; Samuels 1973; Svartvik and Wirén 2013; Vescio and Weaver 2013). Stereotypes and stereotyping are concepts that have a strong connection with the anthropological concept of ethnocentrism. They are important group adaptations because “they preserve the dominance of powerful groups: they not only limit the opportunities of stereotyped groups but also produce a litany of negative outcomes when those [individual] group members defy them” (Vescio and Weaver 2013). Within the logic suggested by MLS, stereotypes are thus powerful tools in maintaining group conformity, by using internal pressure on non-conformists, while at the same time casting the out-group in a negative light. Stereotypes about ‘the other’ religion, like those noted by T1 and C1, were pervasive in my study.

Three specific stereotypes emerged from the data that are extremely interesting and are worthy of further investigation. The first example is the pervasive stereotype by the out-group that Afro-Brazilian religious offerings (also called *oferendas*) should be feared and respected. Regardless of race, age or socioeconomic status, seventeen out of seventeen (100%) of the non-practitioners of Afro-Brazilian religions verbalized respect and/or fear while discussing the *oferendas*, while four out of four members of the in-group also respected the *oferendas*, but at the same time also explicitly stated that they did not like the practice of placing the *oferenda* or found it offensive (Fisher’s Exact: $p <$

0.01). Further discussion on this stereotype forms the basis of Chapter IV of this dissertation.

The second stereotype posits that Pentecostal or Evangelical Leaders have ulterior monetary motives and/or are false prophets. The frequency of this stereotype was not statistically significant in my data (detailed in Table 3.1), mainly because I did not pursue this line of questioning in my interviews; it is however a widespread belief by the out-group and intuitively persistent enough to warrant further investigation.

The third example was a pervasive stereotype about the personality qualities of Pentecostal and Evangelical followers. The vast majority of the out-group stereotypes followed these religions as desperate, drug users, alcoholics, prostitutes and thieves (Fisher's Exact: $p < 0.01$). These findings are also detailed in Table 3.1.

On the whole these negative stereotypes could be deemed to be an unconscious mechanism with ultimate evolutionary consequence to deter people from defecting from their current group allegiance. In short they might be a functional adaptations, or "culturally transmitted values, beliefs" that maintain of group membership ,and influence whether the group will become "extinct" or "survive" (Soltis, Boyd, and Richerson 1995). The "scientific literature on gossip remains miniscule," although Wilson et al. contends that gossip, and by extension stereotypes, plays an important part in MLS theory (2000). This is because language, in the form of gossip and stereotypes, could be indicative of the "group mind" (Theiner and Wilson 2013; Wilson et al. 2000) or "collective wisdom" (Landemore and Elster 2012; Gigerenzer and Selten 2001). I feel this is definitely an area worthy of further investigation.

Table 3.1 Stereotypes about Evangelical and Pentecostal followers and their leaders

ID	Religion assessed Post Interview	Negative Assessment	Positive Assessment	Ultterior Motives of Leaders
C1	Agnostic	Desperate, miserable		Taken advantage of and manipulated to give money
E1	Protestant/Evangelical		Suffering, need help, way to be seen	
E2	Spiritism / Umbanda	Drugs, addicted, not intelligent, unbalanced, bi-polar, sheeple.		Brainwashed to give money
F2	Agnostic (formally Evangelical)	drugs, prostitution, personal crisis		Want your money
G2	Evangelical		Membership used to be perceived as derogatory but not any more	
G4	Evangelical/Baptist	Drugs, homeless, social problems cause destruction in their families.		Pastor only concerned with tithing. Pastors suck from the followers
I1	Various / Catholic	Drink, drugs, cheaters		
I2	Catholic/Rosa Cruz	Lower class of people		
N1	Jehovah Witness	Drunks, selfish needs		Want money from the people
O1	Jehovah Witness	Desperate		
O2	Umbanda	Easily influenced, drug problems, Criminals		Power over people, brainwash
R1	Agnostic	Devil inside and handicapped		
T1	Umbanda	Criminals, drug users, prostitutes, bad guys and girls		
T2	Agnostic			Deceived by false prophets
T3	Catholic	Drugs alcohol, social problems		False promises
V1	Spiritism	Drugs users and dealers		Say they have solutions to everything
V2	Evangelical		Keeps me from doing drugs, drinking and extreme things. Provides social network.	
V3	Catholic	Lack education, drunks		Say what they want to hear. Bad people, but these exist in all religions
X1	Catholic / Evangelical (16 yrs) / Baptist/ now Agnostic	Desperate, evil spirits		

Whether correct or incorrect, these pervasive negative stereotypes may discourage non-Protestants from defecting to this religion. The stereotype does however appear to have a positive element. Many people, including Evangelicals and Pentecostals, see constructive societal benefits of the religion's inclusive mechanisms. In short, they would rather people adhere to these types of religions and lose their negative attributes, than continuing their deviant behavior on the public streets:

...they stop using drugs, lose all their addictions and they go to this religion... so it has its benefits... (E2)

A lot of people in Brazil used to say: they used to have a terrible life.... or were cheating on their wife, or killing people, or whatever, and they became Evangelical... and then people go "ahhhh" [makes signs of hallelujah and faith and redemption].... So would you prefer that person in the new format or the old format? The new format, right? So this religion is a good thing. So there is a point where you should just forget about the past... and if it does some good to that person, than that's great! That's all that matters. (I2)

Although they use a different methodology than the Protestant religions, the Catholic Church strives for a similar outcome by providing support groups and resources to promote socially acceptable behavior and deter deviance. The Catholic Church differs however, because instead of simply adopting an 'inclusive' stance and inviting these 'deviant' people to their public services, they create separate groups and places for people with problems or special needs. One such separating mechanism was described by one of my interviewees:

... there are some Catholic churches, but not those Protestant churches, that have a lot of programs, social programs in Brazil... for example, there a place called *Fazenda da Esperança* (Farm Experience)... It is a priority of the Brazilian Catholic Church. The priest, downtown in front of the big public square, he has a project where he treats people that use drugs and other vices (for example smoking or other addictions). So

those people that have addictions, they go to this farm. They are a selected group... they don't live in groups of more than twenty people because the community is impossible above twenty people... but they can work there, they can learn how to work in bakery preparing bread, or take care of the farm with the animals, and also they try and give another chance for those people (V3).

The *Fazenda da Esperança* was one of many charitable groups or services available. I also noted during participant observation exercises that most Catholic Churches offered an extensive array of social and community programs (See Table 3.2 for full detail from one church). This is not to say people with problems are not welcomed to the general Catholic Church meetings. However, in my observations of Catholic services, people do not normally air their individual personal problems as publically as they would in other religions that I observed. In the Catholic Church, they would join a separate named working group or mission, or use a private confessional booth at a designated time and place (see Table 3.2)

Table 3.2 Timetable of Catholic Help Groups and Ministries (Translated from Brazilian Portuguese).

St John the Baptist Parish, Macaé (Date of Observation 6/30/2012)

Youth Group - Saturday at 17 pm Coordinator: Wellington Cabral
Ministry of Health - Last Monday 2 to 15 h Coordinator, Sister Maria Rech
Pastoral Sobriety - 3rd Wednesday at 19h and 30 min Coordinator: Ivânia Ribeiro
Awakening Group - 2nd Thursday, Coordinator: Regina Coeli
Solidarity Group - 5 Monday at 18:30, Coordinator: Herman Gicélia
Living Hope Group - Monday 6 to 20h and 30min.
Pastoral Family - 3 Mondays at 20 pm, Coordinators: Liliane and Jairo Santiago
Trinity
Ministry of Culture - 3 Last Monday of the month after the mass, Coordinators: Gicélia Germano and Sue Wood
Catechism Chair: Valeria Mancini, 3rd Thursday - 18h, Saturday - 15h, Adults (4th Monday) - 18h, Youth (Saturday) - 18h
Alcoholics Anonymous - Sunday 10am to 12pm
Demanding Love Group - 5 Monday to 19h, Coordinator: Cristiane Lopes
Vincentian (St Vincent Society) - 3rd Wednesday at 19h, Coordinator: Arthur Benjamin de Aguiar
Ministry of Hope - Coordinator: Anderson Gomes de Faria
Neurotics Anonymous - Sunday 17h,
Apostleship of Prayer - 1st and 3rd Friday. Coordinator: Mary S. of Helle-Nice Botelho
Social Pastoral - 2nd Thursday at 15h. Coordinator: Zuleica Fernandes de Araújo
Pastoral Creche - 4th Thursday at 15h.
Legion of Mary - Saturday at 16h. Coordinator: Valerie Pine
PASCOM (Ministry of Communication) - Chairs: Luiz Octavio Rodrigues Tavares and Anderson Gomes de Faria. Pastoral Coordinator: Edna Maria Nogueira
Pastoral Prison - Coordinator: Maria Nogueira Creuza
MECE - Coordinator: Edmar Dias da Silva
Pastoral Liturgy - Coordinator: Sebastiana Lopes da Silva
Vocation and Work Placement - Coordinator: Sister Biásia Angelo Faccio
Ministry of Tithing Coordinator: Jonas Antunes Ribeiro
Ministry of Baptism Coordinator: Heloisa Helena Aguiar
Psychologists, Dentists and Advocate for the Poor (Parish Office)

Airing the Personal Problems

In Chapter II segments of qualitative interview and observational data were coded on a continuum between public and private: from P1 (Private/Private) conditions to P4/P5 (Public/Public) conditions. Specifically P2 conditions are those where the individual is in a public space but no one sees them, hears them, or understands them. And P3 conditions are those where the individual is in a public space but their concerns are only heard by a select group of individuals (i.e. fellow kin or religious elder). Collectively P2 and P3 type conditions are interesting because, I maintain that, they allow individuals to use magical behavior and voice their personal needs and desires in public or semi-public spaces, however group norms dictate and control who hears or witnesses these concerns. This is potentially another adaptation that the group may have developed to maintain cohesion and control. This observation and hypothesis is not something I believe has been addressed in the evolutionary literature in relation to religion.

I propose that if the religion controls the way it lets individuals share, or not share, personal problems and concerns it could in turn promote conformity and control. This mandate to maintain cohesion and unit was compounded by the content of one particular Baptist Bible study I attended:

The Assistant Pastor explained that the purpose of the Bible study group was to faithfully interpret the words of the Bible. Several people, including the Asst Pastor, used Ipads or tablets to reference the Bible... the Asst Pastor shared his iPad with me (with an English translation specifically displayed for my purpose) during sections of the reading. The previous week they had all been given this week's study in the form of a leaflet handout; I was promptly given this week's study and the next. The

title of the study for today was “*Deixem de julgar uns dos outras*” or “Stop judging others.” Seated in a circle they discussed numerous things:

They believe that the first time a person comes to the church they may be fragile, and thus it is important to embrace and not judge a person who comes to the church. The appearance of the person doesn’t matter: what they are wearing, if they look up or down when praying, or if they kneel or stand when praying etc. That when you point a finger at someone, four fingers are pointing back at you

The conversation lasted about an hour and was closed by a prayer from the Pastor. The Pastor was also keen to reiterate some of the words for the study leaflet:

“O mandamento deixemos de julgar uns aos outras, é essencial a manutenção de unidade do Corpo de cristãos. Um grande perigo para a paz e unidade do grupo de cristãos, é uma pessoa com espírito de critica. Rápida no gatilho, critica tudo o que não gosta ou não entende. Semeia duvidas e suspeitas. Em outras palavras, infecciona o corpo. Quando os cristaos ficam julgando uns outras, surgem divisoes, contendas , amargura, orgulho e maledicencia. Tais coisas destroem a harmonia qu e deve caraterizar a Corpo de Cristo.” (Romans 15:6)

“The commandment we stop judging each other, is essential to maintenance of the unity of the Body of Christians. A great danger to peace and unity of the group of Christians, is a person with a spirit of criticism. Quick on the trigger, (this person) criticizes everything that they do not like or do not understand, and sows seeds of doubt and suspicion. In other words, infects the body. When Christians are judging each other, there are divisions, strife, bitterness, pride, and gossip. Such things destroy the harmony that should characterize the Body of Christ.” (Rm 15.6)

In this group, maintenance of peace and unity of the group, through control of the individual voice, was deemed to be paramount.

P2 Condition: No One Jears

The first manifestation of the P2 condition I observed promotes maintaining a stoic or impassive stance and refraining from individual emotional outpourings and sharing of any individual or personal problems, concerns and criticisms in public spaces. This is done to promote and maintain unity of the greater group.

In the Catholic Churches that I attended, services (mass) were prepared and printed in advance and entirely scripted. People remained, for the most part, passive and stoic. In all services that I observed, many people sat quietly with their eyes closed as if sleeping. Mass strictly followed, word for word, the pamphlet provided at the front door. There was no deviation from the program. Allowance for any form of personal expression was not scheduled during regular services, with the exception of singing hymns. I noted that some people did slightly sway during hymn singing. In one mass especially prepared for children, the children were led and encouraged, by women designated for the role, to participate in choreographed gestures (clapping or hand swaying in certain parts of the song). At all services, children were openly schooled in the ‘correct etiquette’ of the service: when to be quiet, when to stand up, sit down, kneel, pray, say ‘hello to the neighbor’ or, sing. Everyone did everything the same; as decreed the bottom of the signage for one of the Catholic Churches I observed: “*Os primeiros Cristãos tinham tudo em comum. Eram obedientes aos apóstolos e viviam no templo em oração. Atos2:46*” (The early Christians had everything in common. They were obedient to the apostles and lived at the temple in prayer) (Figure 3.1).

I also noted in Catholic Churches that some people also used small private rooms off to the side of the main areas, for quiet contemplative prayer (Figure 3.2). In all Catholic Churches I observed, public expression of desire and suffering, and communication of individual need, was kept to the absolute minimum.

Figure 3.1 Signage outside Catholic Church

1 - MISSAS:
 4ª e 6ª - 19:00 h, SÁB. - 17:30 h
 DOM. - 08:30 h e 19:00 h

2 - REUNIÕES DAS PASTORAIS E MOVIMENTOS

. LITURGIA	ÚLTIMA 6ª FEIRA DO MÊS
. DÍZIMO	REUNIÕES TRIMESTRAIS
. PASTORAL DA ESPERANÇA	PLANTÃO ÀS 2ª FEIRAS
. PASTORAL DA JUVENTUDE E CRISMA	3ª FEIRA 19:00h
. VICENTINAS	3ª FEIRA 17:00h
. PASTORAL FAMILIAR	3ª FEIRA 19:30h
. OFICINA DE VIOLÃO E TECLADO	3ª FEIRA 19:00h
. GRUPO DE TRABALHOS MANUAIS	2ª FEIRA 14:00h
. CATEQUESE	5ª FEIRA 19:00h
. LEGIÃO DE MARIA	6ª FEIRA 16:00h
. APOSTÓLOS DA ORAÇÃO	1ª 6ª FEIRA DO MÊS
. GRUPO DE ORAÇÃO	2ª FEIRA 20:00h
. PASTORAL DO BATISMO	ÚLTIMA 5ª FEIRA DO MÊS
. COROINHAS	SÁBADO 16:00h
. MINISTÉRIO EXT. DA EUCARISTIA	1ª 6ª FEIRA DO MÊS

* BÊNÇÃOS
 * CONFISSÕES
 * ACONSELHAMENTO

6ª FEIRA DAS 10:00h ÀS 11:30h
 E DE 15:30h ÀS 17:30h

3- SECRETARIA:
 BATIZADOS, CASAMENTOS, ETC.
 DE 2ª À 6ª FEIRA DAS 14:00h ÀS 19:00h

TEL: (22) 2773-3402

" OS PRIMEIROS CRISTÃOS TINHAM TUDO EM COMUM. ERAM OBEDIENTES
 AOS APOSTÓLOS E VIVIAM NO TEMPLO EM ORAÇÃO". [ATOS, 2:46]

Pe Luiz Carlos Pedrini
[Pároco]

Figure 3.2 Woman praying in separate private space provided by the Catholic Church



P2 Condition: No One Understands

In another manifestation of the P2 condition, emotional outpouring and public declarations of personal problems are allowed, but no one understands the message. I interpret that this type of P2 condition may also promote group cohesion by visibly demonstrating that one is ‘not-alone’ in their suffering, while not verbally divulging the specifics of the particular problem(s).

In the following excerpt from an interview, my interviewee describes how she is unable to understand the specifics of the conversation around the *Mesa Blanca* (white table) Spiritism meetings. The White Table is part of Kardec Spiritism but is also used in Umbanda. At the White Table, mediums channel spirits and solve individual’s problems.

On Saturdays we have the white table... the white table is to help those that are suffering... Most people who are there, they just start crying,

crying and crying – both men and women. And you ask the person "why are you crying?" And they are not able to tell you. Sometimes they just start to scream, or say some words like "ohhh you need to pay me," "I'll be always with you, I will not leave you," "you will not have a good life, because I will always be with you," "I hate you." And after that, they are gone... (pause) (F1)

Thus the group is aware that the individual has problems, but not the specifics.

Similarly, the following excerpt from a participant observation describes how one First Wave conservative Pentecostal group adopted an interesting, and somewhat sexually discriminatory, mechanism for anonymously communicating personal problems in public manner.

As we entered the main hall, the man standing at the microphone in the center of the pulpit was delivering a pleading prayer in effort to aid a child in the congregation who was currently in hospital suffering with a life threatening blood disease. The man, I later learned, was called a "Communicator." My informant told me that the Communicator channeled the message or words of Jesus. As well and controlling the format, timing and flow of the meeting, the Communicator, who was also a prophet, could deliver messages to the congregation directly from Jesus.

The Communicator often changed his pitch, tone, volume and rate of delivery of his messages. At times he was yelling, arms raised or fists pounding, his face would go red and flushed, and at other times his voice would drop to a whisper. He often licked his lips and wiped his face and brow with a handkerchief. At times his voice would adopt a quivering, trembling and punctuated tone reminiscent of a stereotypical fire and brimstone sermons; at times he reminded me a an excited auctioneer repeating the same phrase over and over again in rapid succession. The crowd responded to this message in various ways... some appeared to be praying with head in hands, others were crying, others were speaking, and others were just looking straight ahead with blank gaze. Overall the general droning noise of the crowd was constant and despite the relatively small room containing approximately 200-250 people, a microphone was entirely necessary. Often people around me would yell phrases like "halleluiah" or "*Graça os Deus*" (Grace of God), or "*paz com Deus*" (peace with God), but at other times, I was unable to understand what they were saying.

I initially thought this was because of my lack of Portuguese language skill; however later my informant told me that they were not speaking Portuguese... they were speaking “spirit language.” This unintelligible language [speaking in tongues] is commonplace in this denomination. G3 informed me that this is the language that is used by the soul of the person to communicate directly with Jesus, and is ONLY understood by Jesus. Both men and women speak this language; however only men are understood by Jesus. I was informed that if a woman’s soul has a message for God, she can occasionally speak this language, however her message is intercepted by the soul of a man, and he communicates her message to Jesus using his spirit language. People throughout the congregation spoke this way, which accounted for the constant noise.

When I questioned my informant about this after the event, she explained the reason for the unintelligible language. No one can understand the language except Jesus. Thus when ‘Individual A’ speaks the unintelligible language, even though they are speaking it in a public forum, they are delivering a private message; in essence their private and personal message directly to Jesus. When Jesus receives Individual A’s message, he provides the answer back to the congregation via the Communicator (the Group leader). The whole congregation hears this message delivered by the Communicator in Portuguese. Individual A recognizes the response as an answer to their specific request or question, and takes comfort or heed. My informant explained to me that this process was entirely necessary because if Individual A publically announced their problem or question to the entire congregation in Portuguese, and then received a response via the Communicator in Portuguese – how would anyone know if the Communicator was faking or not? By sending the message in code privately, and receiving a decoded specific response publically, My informant felt that any chance of fraudulent prophecy was completely eliminated.

For example, a person in the congregation, speaking in the spirit language, allegedly asked for help with a work related problem. The Communicator, allegedly channeling the words of Jesus, responded that someone in the congregation is having a work related problem... they are working hard with their hands, but making little progress... On the third day of this week, someone will approach you with a contract... on the surface this does not seem like a good business transaction, but you must take the contract... good will eventually come of it. Judging by the cries and responses, many people in the congregation appeared to think that the Communicator’s message was specifically directed at them.

In another example, a person in the congregation, speaking in the spirit language, allegedly asked for help with an adolescent child. The Communicator responded that someone in the congregation is having a problem with a son or daughter... they are not acting in a responsible manner. From this the communicator delivered a solemn and heated sermon on the necessity of living a virtuous life, the importance of family, with no sex before marriage... in short following what they believe to be the twelve revelations of Jesus. ...

... After the hymn, people sat down, and the Communicator invited people from the congregation to come forward and provide personal affirmation and give thanks to Jesus. Women used the microphone in front of the women's section and men used the microphone in front of their section. My informant explained to me that people would come to the front and talk as the spirit moved them. Many people came up to the microphone and gave heartfelt and passionate thanks for what they felt was Jesus's intervention in their lives: One man, cried as he told the story of how he was experienced credit card problems and didn't know how he was going to buy clothes or shoes or food for his family... He had gone to the bank and, by the grace of God, the teller had provided a solution to his problem in the form of a payment plan. Another woman, cried and fiddled with the tails of her lace scarf, as she described how she was grateful to have found this welcoming church after having moved to the city from the rural area to find work.

After the affirmations of thanks, the Orchestra played another hymn and everyone stood to sing. All the time the noise level in the hall was deafening... and children continued to play in the aisles... and people cried out in spirit language, or shouted in concordance with what was being said. Many people in the crowd, both men and women, openly sobbed with their bodies shaking and straining as they gasped for breathe, and lost composure.

As a participant observer, I was physically and emotionally exhausted by this event. The noise, energy and palpable raw emotion that the event exhibited was something that I had never experienced before. I speculate that this type of adaptation potentially has two functions. Firstly it provides cathartic outlet for individuals, in a similar sense to Malinowski's vitalistic function (Malinowski 1954) or Gluckman's rituals of inversion and his concept of "steam valve release" (1965). However, ultimately

has a similar outcome to the first manifestation of the P2 condition in that people do not really know the specifics of other group member's problem(s). By allowing the individual an outlet for emotion but at the same time controlling the individual's method of communication, the group addresses individual need but at the same promotes unity.

In this second manifestation of the P2 condition, individuals participate in group rituals in public spaces and they have the opportunity to voice their concerns however no one understands their message. This type of service provides both a cathartic emotional outlet for suffering and a collective sense of camaraderie in knowing you were not alone in your suffering. This is especially compounded because normally at the end of such events (as detailed in the last excerpt and the next), the religious leader calls people forward to give testimony to the power or such forms of communication and magical behavior, and publically share their success stories.

The following example of a P2 condition illustrates how it provides both cathartic release and the controlled sharing of success stories, but most individuals in the group never actually say a word – that is, until there is something positive to say. I learned from one of my interviewees that one church in Rio de Janeiro, *Igreja Mundial do Poder de Deus* (Worldwide Church of God's Power) regularly draws crowds of 9-10,000 people, with services three times a day, seven days a week. It also has twenty four hour live streaming video, a TV channel and radio (see <http://www.impd.org.br/portal/>.) At every church, the service times and the focus of the service are the same:

- Sunday: Multiplying or spreading the word (da multiplicação)

- Monday: Financial Growth (Crescimento Financeiro)
- Tuesday: Urgent Miracles (Milarges Urgente)
- Wednesday: Spiritual Strength (Fortalecimento Spiritual)
- Thursday: Outcry for the salvation of family (Clamor pela da Salvação da Família)
- Friday: Total Liberation and Freedom (libertação total)
- Saturday: Outcry for Impossible Causes (clamor pelas causas impossíveis)

In effort to avoid the extremely large crowds, I visited the local Igreja Mundial in Macaé several times. This meeting place is much smaller than the one in Rio de Janeiro; I estimated it could hold up to about 600 people in the seats, with at least double that standing. On this occasion I attended the 3pm Tuesday “Milagre Urgente” (Urgent Miracles) service; being the middle of the day, much like a matinée movie in the middle of the week, the crowd only numbered about one hundred people.

The service started exactly on time at 3pm. A blonde haired woman in her thirties, wearing jeans, flip-flops and a t-shirt walked on to the stage and started to play the organ and sing; it was a slow song that the people in the crowd also knew and they joined in. The male Pastor wearing a navy suit and tie then walked on stage and, using the microphone, started to talk over the organ music... the music faded ever so slightly, so that the two overplayed one another: (in Portuguese) “My Dear Father, you know we have problems... we have great problems... we suffer much...” As he continued in his impassioned oration, people in the crowd stood and raised their palms upwards to the ceiling.... as he continued, his voice broke into a cry and he looked like he was in pain. Some people continued to sing, swaying in place in time to the music, and others also started to cry and wail.

...

At about this time, a teenage boy with what appeared to be cerebral palsy or another debilitating mental and physical disease was wheeled into

the hall using an electric wheelchair by two attendants... and positioned at the front of the hall by the stage. Three male attendants, also wearing blue long sleeve shirts and ties, appeared from the storage room to the right of the stage carrying trays of small bread buns wrapped in plastic bags and tied with the a small nylon piece of fabric inscribed with the following: Be thou a blessing. Now the Lord said to Abraham, leave your country, your family to the house of thy father, and go into the land I will show you, I will make a great nation, and bless thee and magnify the name. Be thou a blessing! Genesis 12:1-2 Great Temple of Miracles

The wrapped bread rolls were handed out to the congregation. People opened these bags, broke of a piece of bread and held to the two in their upstretched arms. The preacher at the front on the podium, placed is back to the crowd, went to his knees and spoke incoherently to himself. He then stood, faced the crowd and instructed them to eat the bread. I assumed this was to symbolize eating the body of Christ. The music played on and the preacher continued his impassioned oration: at times his voice would lower to a whisper, and at other times he would be yelling in to the microphone with red face. As he did this, the attendants wandered throughout the crowd approaching people individually.

The people they approached were standing with arms upstretched, singing and swaying to the music, or listening and responding to the words of the preacher.

An attendant walked up to the side of the person without being asked, and placed one hand on the person's forehead and the other hand on the back of the head. He appeared to use great force in the hold. He would then yell in the persons ear (I was unable to understand what was being said as there was a great deal of noise with the music and preacher's oration). After a minute of two and yelling into the persons ear, they would almost violently shake the person's head three times whilst saying what I think was "*cessar cessar, cessar*" (leave, give up, go away). At this point the person would sometimes stumble or appear to almost fall... the attendant would support them. The response of the person to whom this was happening was to simply take it... they did not acknowledge or talk to the attendant or consent to this beforehand... they were just selected by the attendants. The crowd became quite incited and noisy as this was happening, the music became louder and more stirring, and the preacher became more impassioned in his tone, volume and pitch.

After several songs had passed, the preacher motioned for people to sit. He stepped off the stage and started to walk among the crowd. He asked people to share their stories of miraculous success: at first he asked

if anyone had had successful outcomes resolving problems with their legs or arms... several people responded. He asked these people to demonstrate to the others by doing exercise type movements as proof of their healing; several women broke into jumping jacks and the organist played disco type music. He then suggested that people in the crowd take the cloth provided with the bread roll, and use the power of the cloth on the area of their body that ailed them. Several people placed the cloth on their head suggesting that they had worries and troubles. Many people stood with the cloth in their hands above their heads.

The organist started to play another song and members of the crowd, each with their individual cloths, swayed in time to the music, singing and wiping their brows or legs and abdomens as if the cloth has special magical powers.

After five minutes or so, the preacher again invited people to come forth with their successful miraculous events. One woman took the microphone and explained that she previously had problems with her colon and knees, but they are no more (and did a jig type dance in front of the crowd). Another woman testified that her son was no longer using drugs and that she was very happy for this. Everyone who came up to the preacher seemed enamored with him, looking lovingly into his eyes and taking any opportunity to hug him. He would hug them in return.

Here at the *Igreja Mundial*, while you may have had a personal problem you never actually verbalized it. You were selected based on your body language, and never actually shared your problem with the greater group. It was only after the problem had been solved, that you publically shared the miraculous outcome. I hypothesize that these positive testaments of miraculous intervention in individual's lives promote group cohesion and "ratchet up" beliefs – in short, these are credibility enhancing displays (Henrich 2009).

If you did however want to actually speak with a human who understood you, provision was made for this. To illustrate, at an *Assembleias de Deus* (Assemblies of God) evangelical service I witnessed the following:

At the front of The Sanctuary was a huge stage where an enthusiastic fourteen piece amateur soft-rock band belted out Christian songs in karaoke-style synchronization with two extremely large plasma screens that framed the stage. I soon found that I was the only one sitting; the crowd quickly swelled to about 350-400 energized people: people stood singing and swaying with their hands raised in the air, people “slithered on the ground in groups like mating snakes” (the Pastor’s words), people collapsed at the foot of the stage, people danced, people howled and whooped, and many people spoke in tongues and/or developed seemingly uncontrollable ticks (one woman continually walked across the stage as if imitating a chicken).

The crowd was very diverse... however, the one thing they surely had in common was that they all appeared to be enthralled and/or emotionally moved by the event – yet these were not the only participants.

If one observed closely there were other participants: people with small badges pinned to their lapels walked up and down the aisles observing the crowd (I later learned that some of these people were called the “alter missionaries”), there was also people instrumental in the performance (changing costumes and waving flags – like Olympic rhythmic gymnasts), people dutiful to synchronizing the audiovisual equipment and pacing the event, people devoted to distributing and collecting the money collection buckets, and of course the Pastor, assistant Pastor and the musicians on stage. None of these people seemed to be moved by the same emotion as the rest of the crowd.

Oblivious to the majority of the crowd, a small man with a handheld clicker-type counting instrument was walking up and down the aisles taking attendance and noting faces. He frequently stopped and spoke individually with people; he approached me and asked that if I had a specific “outpour” or “spiritual request” I could adjoin to the “worship room” where members of the “worship ministry” would be “pleased to help me”...

P3 Condition: Only Valk to Elders

This brings us to the P3 Condition. In the P3 condition the individual’s communication is only heard by select individuals. In the case of Assemble of God, members of the “worship ministry” were specifically designated in separate spaces, away from the main group, for this purpose. A similar strategy is adopted by the

Catholics and their confessional booth. In Catholic Churches I attended, if needed, private confessional (*confissões*) and counseling sessions (*aconselhamento*) were available at scheduled times and days (Figure 3.2 illustrates that at that particular church Saturdays 10 - 11:30am, and 3:30 – 5:30pm).

At Spiritismo meetings, individual consultation was held behind screens at the front of the meeting hall. At one Spiritismo meeting I decided I had to experience the *Passé* (pass). The *passé* is one of the mechanisms utilized in Kardec Spiritism in an attempt to relieve, or to heal, people's sufferings or needs. It is similar to the "laying on hands" used in Evangelical and Pentecostal religions or Reiki practices, in that the *passé* seeks to find "equilibrium between the physical and the spiritual bodies" (V2). In the following excerpt I describe the *passé* and its public/private nature.

By this time approximately eighty people filled the hall, only about twenty five percent were male. There were also several couples or single women with children and babies in arms. Betty [not her real name] stood again and said that they would now make the *passé*, and that they would take people with children first. With this, Betty turned on the music again.

The first four people who wanted to take the *passé* filed onto the stage, very slowly and respectfully. Ushered by Betty, they disappeared behind the blue screens located at the rear of the stage. Four new people in the crowd went and sat in the front row of the hall waiting for their turn to take the *passé*, there was no rush, people did this in a very calm and orderly fashion – there was no queue – people just stood and took a seat when one was available. Other people quietly remained in their seats. About three or four minutes passed and the first group of four people filed out from behind the screens and were directed, by Betty, to drink from small plastic cups of water that were positioned on a tray to the right of the inside of the stage. After drinking the water, some of these people then collected their belongings and left, and others retook their seats in the hall. The process was repeated with the next group of four people. This continued for the next thirty minutes as nearly everyone in the hall had had a turn at the *passé*.

I remember what my advisor had told me: sometimes you have to step outside your comfort zone for the sake of anthropological data... and I wanted to know what happened behind the screens. So with a great deal of apprehension I took one of the four seats at the front of the hall and awaited my turn. I was unsure what to expect. I was nervous, did not know what would happen behind the screen, and whether my Portuguese language skills would be up to the experience. When we were called, I followed the three people in front of me onto the stage and behind the screens.

Behind the screen was a row of four plastic chairs; in front of the each chair stood a person. There was one grey haired elderly man in his sixties, a younger woman who had spoken earlier, a very elderly woman in her seventies or eighties and another younger long haired thirty-something year old woman. All were white skinned. All were dressed in casual clothing, and all appeared to me in meditative, calm states.

I followed the lead of the lady alongside me. I sat in the third chair in front of the very elderly lady. It appeared customary to turn your palms upwards resting on the armrests of the chair – so I did this. The elderly lady stood directly in front of me, very close, but not touching, and outlined my body with her hands several times... as she did this she had her eyes almost closed and whispered something that sounded like an incantation or prayer. During this time I felt the kind of tingling sensation in my body – I wondered if it was because of the close proximity of encounter, or because I was nervous. It reminded me of a game I used to play as a child, seeing if you could feel the energy between people by getting close but not actually touching. It also reminded me of Reiki. I noticed that the other three participants were finished long before the elderly lady was finished with me – she continued to pass her hands over my heads, shoulders and arms for some time. When she was finished she clasped both my hands and slightly squeezed them the way a grandmother does as a non-verbal signal of love. We made brief eye contact and I thanked her.

The four of us filed out from behind the screens and were directly by Betty to take some water...I drank some water, and returned to my seat. There were only two more groups of four people after me.

As a P3 condition, the *passé* at the Spiritismo Center was central between public and private. Through non-verbal communication, I, like the other individuals at the

meeting, had the opportunity to semi-privately and non-verbally share my concerns with a trancing religious elder.

Satisfying individual need via consultation with religious elders was the focus of the service at Xango Menino, a large Candomblé/Umbanda Temple in the downtown area. The following excerpt from a participant observation details the ritual of the *Preto Velhos* (Old Blacks). Emerging during a trance state, the Preto Velhos are important entities in the Umbanda religion; they represent the “spirits and life blood of old slaves who endured their captivity and emerged with infinite patience, humility, wisdom and healing powers with their prescriptions of herbal remedies and laying on of hands” (Hale 2009). This religion’s mechanism for dealing with individual’s personal needs, needs that warranted personal consultation with the channeled spiritual elders, was a public affair, contained in a private space. The following excerpt is included because it demonstrates the ritual surrounding of the event, and emphasizes publically sanctioned normalcy of individual need

Approximately 120 men and woman of all ages and races, dressed in traditional Bahia costumes, were dancing in two concentric circles on the highly polished wooden floor of the performance area (Figure 3.3). They were all singing and clapping in time to the rhythm of the drummers playing the three large tom-tom style drums in the right hand corner nearest the alter. The approximately 250 people in the audience were also singing and clapping along, from their vantage point in the viewing area. People crowded the steps and doorways trying to get a get view. It was a joyful kind of singing.

I know from past experience the inner most circle of dancers were the mediums, and the second outer circle were the mediums assistants. After one song had passed, an elderly woman also dressed in Bahia costume entered the viewing area swinging a smoking incense burner; similar to those used in Catholic services. The president (religious leader) announced that this was to ward off potentially evil and maleficent spirits.

He also explained that it was necessary to evoke the *Orixá, Exú*, as the messenger and gatekeeper to the Preto Velhos (Old Blacks)

The President gave a short sermon, facing away for the crowd and towards the altar. He spoke about how people should look to themselves, instead of criticizing others for their imperfections. He spoke of problems people experience with health, love, family, finances and personal success. During this time the performers stood in lines in the performance area with heads bowed. Whenever the president said the word *Xango* (pronounced 'shango'), the performers and many of those in the audience would repeat the word, in addition to touching the ground with their hands and making the sign of the cross.

... the drummers started up again. The song this time was slower and sounded like "Ave Maria." Almost immediately one of the mediums broke from the line and started to hobble with hunched back into the center of the circle. Within seconds she was joined by another medium entering a trance of a Preto Velho, and soon another, and another; all of them adopted the same bent over, hobbling type stance.

The Preto Velhos were each attended to by an assistant. Some helped them to walk, and some even produced canes and walking sticks. The Preto Velhos frequently swept the floor with the hands making signs of the cross. By the time the song had ended many of the Preto Velhos had taken their positions at various stations dotted around the room.

... in total I estimate there were approximately sixty Preto Velhos dotted around in the controlled areas of the compound (either in the performance area, the restricted area behind the performance area or another building towards the back of the temple compound). Protecting the Preto Velhos and their security was evident: not only were the Preto Velhos seated in protected areas, the front gates of the compound were locked and only opened for five minutes every half an hour thereafter.

Figure 3. 3 Inside Umbanda / Candomblé meeting place



Figure 3.4 Public/Private Consultation with Preto Velhos



Figure 3.5 Lottery draw to consult with *Preto Velhos*



After the Preto Velho arrived at their designated station, they took some time to settle and get comfortable, this arrangement can be seen in Figures 3.4 and 3.5. All sat on a low wooden stool surrounded by their things. Another stool was placed immediately in front of them and initially the Preto Velho's assistant sat on this stool and attended to the Preto Velho's needs. As they settled into place, many lit a corn cob pipe, and seemed to relish and enjoy the smoke – sitting back like an old person on a park bench contemplating life and the chance for a rest. All lit a white candle at their station. Some produced small tablet style chalk boards and appeared to draw '*Pontos Riscados*', indicating the *Orixá* (Afro-Brazilian deity) they were channeling. Others ceremoniously blew smoke into large brimmed straw hats and placed these hats on their heads. Others had groups of assistants sit on the floor in front of them, and they appeared to be telling stories and offering advice (these mini-scenes reminded me of some of the pictures I saw in childhood books of Huck Finn and Brier Rabbit). Many started to make noises: "arh, arh, arh" or "erh, erh, erh" or continuously snapping their fingers making loud clicking sounds.

During this time, people in the audience dissipated like they had seen it all before... many strolled or sat in the gardens, or visited with

friends, or went to the coffee shop or library. The audience area of the main hall was only about twenty five percent full; people started to talk amongst themselves, check their cell phones or read books... A man, dressed in Bahia costume, appeared at the gate between the audience area and the performance area and set up a small podium and microphone.

After about ten minutes had passed the Preto Velhos were ready. The man at the microphone called number 45... and shortly thereafter another number, and another... It appeared that people in the audience, who had previously applied for a consultation with a Preto Velho, had each been given a ticket with a number. As their number was randomly called, drawn from a hat type lottery, the ticket holder would go to the man on the microphone to be joined with a specific Preto Velho's assistant. After they removed their shoes and entered the restricted area, the assistant would then lead this person to the Preto Velho for a consultation.

Soon many of the Preto Velhos were joined with individual audience members – hereafter called the consulted. The consulted would sit on the small stool in front of the Preto Velho. The Preto Velho and consultee would engage in multiple different activities: passing the hands over the body both in close proximity but not touching (Passé), sometimes clicking fingers, and also touching or placing hands on their heads; massaging necks and shoulders, entering into deep discussions, and making signs of the cross on the consulted's body. These activities were taking place all over the compound.

Numbers continued to be called over the loud speakers by the man on the microphone. There was no set time for consultation: some of the consulted were with a Preto Velho for a long time and other only a few minutes. I heard numbers up to 215 being called, so one could assume there were at least that many people on the crowd being consulted.

I learned from speaking with people in the crowd that night that people seek all types of personal advice and guidance on individual needs by communicating with the Preto Velhos. They meet with the Preto Velhos one on one, and only the trancing Preto Velho hears their concerns. So although in a semi-public space, the communication of individual concerns is contained.

Although the ritual was somewhat different, I witnessed this type of personal, yet public, consultation mechanism at several other participant observation events I attended. At a festival for Exú at a much smaller Umbanda spiritual temple, an elderly gentleman who was trancing Exú, an Umbanda Orixá, came to offer me unsolicited advice.

As I sat in the audience observing, he came and stood very close and in directly front of me. In a defiant pose with hand on hip, he sipped his whiskey and blew cigar smoke in my face...He told me that he was working hard for me, and that I should place three candles and five red roses on the rock at the entrance to city and all my wishes would be realized.

I did not ask for this advice, but if I had have had a problem, I may have interpreted this as the potential answer. This divinely inspired communication was given to me privately in a public setting.

As F2 said in the opening vignette to this chapter, if one was “looking for something that got the emotions going a little more than a luke warm Baptist church...” one might well choose an Evangelical, Pentecostal or Afro-Brazilian religion. But I argue that there are functional reasons for this: the first strategy, as adopted by the Catholic Churches that I observed, suppresses or isolates individual need from the greater group and in doing so potentially promotes group conformance and cohesion. The second strategy employs emotion or human ‘touch’ and provides cathartic outlet for the individual, and at the same time helps to promote group unity by implying that followers are not alone in the problems. It does this however, without disclosing to the larger group what the individual’s specific problems actually are. These two different strategies both promote group cohesion, but do so using a variety of methodologies.

Norms and Rules

“Religion is an easy way of having rules – and justifying rules”
(V2, Evangelical)

For Catholics... we have Ten Commandments. For example: love God, respect father and mother, don't do to other people what you don't want to yourself... so it could be read as rules for me to try and live a better way to try and be a better person. I don't want to do to others, what I don't want done to me. This is what I mean as rules. To do the things that God says. I think that it is important. Don't do bad things. Why? Because I can't keep myself doing the right things, if I don't have religion or education – even if it is Catholicism, Spiritismo and Umbanda... For example, if I don't have this education, maybe I could kill somebody and think that it was normal. I could steal something and think that it is normal. Of course it is not about only religion, it is about education that I receive from my parents, but religion helps you do the correct things. (I1, Catholic / Various)

Suppressing and/or separating the communication of individual needs and desires come in the form of norms and rules. Every religious ritual described thus far has norms, or standard operating procedures: it was expected that the Preto Velhos would emerge at a specific time in the Umbanda ceremony and not during the President's speech, or that people would commence using “spirit speak” (glossolalia) at a certain point in the Pentecostal service and not at any other time, or that people would stand, sit, kneel or sing at specified times in the Catholic Mass. These norms also dictate whether or not people can disclose to the greater population (other members of their religion) their individual needs or desires.

Within the confines of the Evangelical, Pentecostal or Afro-Brazilian meeting space, it frequently appeared that an orchestrated “anything goes” type norm exists. These visibly emotional Afro-Brazilian, Evangelical and Pentecostal services, appeared to provide a psychological ‘safety valve’ or pressure release, by providing the

opportunity for ‘inversion’ of the normal rigors of day to day existence: people do not normally wail, dance, trance and cry in public. These inversions were the norms within some religious group’s meetings; however norms and rules for life outside of group meetings could be entirely different.

On multiple occasions my interviewees indicated that they felt that the Afro-Brazilian religions had “no rules”: ‘rules’ in the sense of strict Catholic rules. Even a practitioner of Afro-Brazilian Religion indicated that he did not need the (Catholic) ‘rules: “I have a good relationship with good guys [meaning the Umbanda Orixás], so, to go to church and adhere to some rules – I don’t need that” (T2). This belief that the Afro-Brazilian religions ‘had no rules’ also fed into the pervasive stereotype by the out-group that their ‘black magic’ or *Macumba* practices should be feared. If Macumba practitioners do not adhere to the golden rule of ‘do unto others as you would want done to yourself’, one might have good reason to fear them. Discussed extensively in Chapter IV, I argue that this belief or stereotype threatens conformity and undermines the power of Catholic rules and authority.

As previously discussed, the negative stereotypes and perceived positive outcomes for followers of the Evangelical or Pentecostal religion are addressed by doctrinally decreed rules. I observed that these rules are mainly individual or kin centric, focused on individual or “personal healing” (Chesnut 1997). Many Evangelical and Pentecostal religions in Brazil emphasize that their followers exercise social control and personal discipline and lead a morally sound life, by excluding the “corrupting social engagements of the world” (Mariz 1992; Ireland 1995; Lehmann 1996). Broadly

speaking, “researchers have found that affiliation with Conservative Protestant faiths... and a commitment to a literal view of the Bible are often associated with more restrictive, punitive beliefs about sexual morality, such as prohibitions against sex outside of wedlock or condemnation of homosexuality” (Ogland and Hinojosa 2012). In some of these religions, if one does not follow the rules there are consequences. The following vignette exemplifies the consequences of not following the rules:

As we approached the brightly lit white building (Pentecostal Meeting place), I could hear the Orchestra playing. My informant had previously told me that her brother was a talented musician who played numerous instruments and loved music, and I asked if her brother played in the orchestra... she replied, “No, he is not allowed to play in the Orchestra, he had sex before marriage with a girl, and got her pregnant, and now he cannot play in the Orchestra for five years... we have rules! And we have consequences! Some people say my deaf brother was punishment because my parents had sex before the wedding” (Participant Observation at Christian Congregation of Brazil).

For the most part, it appeared to me that the ‘rules’ of Evangelical and Pentecostal religions mandate individual level changes that in turn promote positive familial and societal change: a bottom up type approach. For example, if a bread winner of the house is cured of an alcohol or drug addiction, the entire family, and ultimately society can benefit. These tangible benefits as a result of individual focused norms and rules, combined with promise of miraculous life altering benefits are very attractive – a topic which will be discussed later in this chapter.

Conversely, I perceived that the Catholic Church ‘rules’ on the hand are more of a top down type of approach. These were described to me by several interviewees as “very strict.” Many of the Catholic Church’s individually focused rules are the same as Evangelical and Pentecostal type rules (Mariz 1992), however in addition I noted that

the Catholic Church adds rules that have knock on impact at a societal level: for example assistance for the poor, public stance on the use of contraception, divorce, sexuality and gender issues, to name a few.

One mechanism used to ensure conformance is punishment, including the threat of supernatural punishment. Instead of just the individual or individuals in question being punished, I learned that in some instances the Catholic Church promotes the idea that the entire group or congregation could be punished. Collective punishment, although a concept that I was told “is on its way out in ‘newer’ versions of Catholicism” (T2), was discussed by several of my Catholic or ex-Catholic interviewees, as exemplified by the following vignette:

...a friend of mine... got pregnant without being married. So I knew that, I knew from the Catholic Church that the congregation would lose the Holy Spirit, so I thought I cannot go there anymore, because there is no Holy Spirit there anymore... because if people start to do wrong things, the whole congregation loses the Holy Spirit. That is the active force of God. Yes, I believe the whole group is affected – the whole congregation. (N1)

Catholics adopting this strategy is not surprising; collective coordinated punishment as a strategy can maintain membership (Boyd, Gintis, and Bowles 2010). In simulations “co-operative punishment together with pro-social behavior produces a self-reinforcing system” or “evolutionary stable strategy...that strengthens social institutions” (Jaffe and Zaballa 2010).

Despite the broad sweeping influence of the Catholic rules, in my dataset, Catholics especially found the rules acceptable.

I agree with the rules, because it makes society better. If you give the people the right to do anything they like, it becomes a mess. The

world nowadays is bedlam. I have one... I think about this, you think about that, we don't agree....let's go, let's go [makes sparring movements with fists]. And the Catholic religion is the only religion that has set up rules for everyone, in the whole world, the same rules, never change (T3, Catholic Male).

The Catholic Church did a lot of bad things in the olden days. I know I am not a stupid person, I study history. I have a concept of the things the Catholic Church did: some wars, some saint wars, some things were not good... but I think that the Catholic Church is the most serious of the churches.

They are serious because they have a doctrine; they also defend what they really believe, even if it is against some concepts of society. For example, there was a girl that was abused and got pregnant by her stepfather when she was eleven years old. And the Catholic Church was against the abortion – even when the baby has problems associated with young age of the mother... she was just a little girl – and the Catholic Church was against this, I was not. I believe she had the right to an abortion, but the only church that appeared on TV and stated its position was the Catholic Church. The other Protestants also have a position, perhaps to not take the baby, but they prefer to hide themselves in those difficult moments. So they have a position (I don't agree with this position), but God's laws are inside the Catholic Church... they say not to abort the baby, even if the baby's dead in the belly... other churches might agree with them, but they do not announce it themselves during these difficult times (V3, Catholic Male).

As a broad overview, using the logic of MLS, at one end of the spectrum I perceived that the norms and rules of the Catholic Church provides for both individual and societal needs. At times the rules that focus on societal needs are often perceived as harsh or very strict when viewed from an individual's perspective: as illustrated in the above example of the eleven year old girl pregnant with her stepfather's baby. Generally speaking, I perceived the rules of the Afro-Brazilian religions sitting at the other end of the spectrum, catering mainly to individual needs. Finally, I observed that Evangelical and Pentecostal religions fall somewhere on the continuum between these two extremes,

vacillating between individual needs, but at the same time striving to keep up with changes in culture, while slowly moving into other political and societal arenas.

Changing the Rules and Making a New Religion

It follows from PH1-1 that the group may change or reevaluate norms in order to appease unsatisfied individual needs within a larger group. The group may sanction some behaviors, by either renaming the behavior or changing their rules and mandates. During my time in Brazil, the concept of religious evolution or change was often the topic of conversation.

We started with the Catholic, and then men protested the Catholic, and then he became the protestant, and then became the Baptist... and the Baptist was protested against others... and all of a sudden we have all these other religions. Because the people never agreed that the priest should never get married. The Priest disagreed with that, and then there was the foundation of the religion where the Priest could get married (laughs) (V1).

In this section I will provide several examples of the ‘group’ changing or adapting its rules and norms in order to cater to individual need. When couched within the logic of MLS, I suggest that evolution occurs because there is tension that exists between the individual and the group.

The first examples are evident in the Catholic Church. Despite some people asserting that the Catholic Church has “the same rules, [that] never change” (V3), we are seeing some subtle and not so subtle changes in Catholic norms. I hinted at one of the subtle changes earlier: in Catholic Mass services, instead of sitting stoically through the mass, children are encouraged to stand and participate in choreographed gestures and dancing.

The crowd stood and sung two songs. While the songs were very uplifting and enticing, people did not sway in place or dance or move. They only sung, and everyone knew the words. At certain points in the songs, everyone would clap in time, or rhythmically wave their hands back and forth... but this was not spontaneous, it was pre-scripted. Hands were never raised above shoulder height and clapping and arm waving would stop abruptly at the end of a specific verse or chorus (field notes).

In addition I also noted that before one specific Catholic Sunday Mass, parishioners were greeted as they walked up the steep steps to the church by “very pleasant music coming from inside... three women singing and strumming guitars... the acoustics were fabulous” (field notes). The overall feeling of this specific Catholic Church was very light and airy and welcoming, and quite different from the atmosphere of the two other more somber and reserved Catholic Churches that I frequently observed. These small changes make some allowances for individual self-expression while also changing the overall mood of the event.

Some changes in the Catholic Church result of personnel resource problems within the institution. After learning from one of my very elderly friends, that an “Assistant Priest” came to their house every few days to give her dying husband Holy Communion, I asked one of my interviewees if this was ‘normal’ practice; he replied that:

This is the exception. It was John Paul the Second, the Pope, which gave people the right to do this, because in the 80’s and 90’s we had too few priests in Brazil...not just in Brazil, but in the whole world! But now days we have a bunch of priests – and only full priests can give Communion (T3).

Others radical changes result from fundamental disconnect between the needs of the individual and the norms of the religion. Several of my interviewees described these changes to me:

...Catholicism has changed a lot and now they have a Charismatic movement. Normally they generate a lot of middle men between you and God: there's the Pope, the priest... blah blah... when the whole proposal should be to have a personal relationship with God: why would you want a middle man, when you can talk directly to the Big Guy? That's what frustrates me about the rules. I noticed that there is a Catholic Charismatic movement. They are changing a drastically. I am not saying that they are copying Evangelical movement, but they are talking a lot more about Christ than the other saints, and the teachings of Christ, and having a different approach to the Bible – so I don't know, but I think it is something that is inevitable: people have these rules, and it gets to a point, and people start to question and then you need to kind of adapt to it. At the same time, you don't want to say: "you know what? All that stuff we did in the past, it wasn't cool" or "we have billions of dollars, or this golden cross... and all of this [inferring material possessions] isn't going to help you out." It's hard when you change, because you break the faith of a lot of people, and, like I said, for every human being it's important to have faith in something. It's a drive.... so I can understand the impact that would have, but it's like you are kind of caught – you have to give the people what they want... (V2)

..the Catholic Church starts a new ... it's a kind of split, now they have what we call Renovação Carismática Católica (RCC) [or Charismatic Catholics]. Some churches are very traditional, when you go there and it would be the same old format, like [Image 1.] But in the RCC... if you turn on your TV on Globo [Brazilian TV channel] on Sunday at 6am, there's a priest Jonas Abib... he is RCC. He has, like a place, like a pulpit with a lot of people standing to watch his mass on Sunday morning... and it's like... it has the same format as this photo [Image 2: Evangelical]. But he calls himself Catholic... it's a business! A business they were losing... and something had to be done...

Apart from being a business [laughs], everything has to renew - and why wouldn't the Catholic Church? So in the past the Catholic Church would not accept people that got divorced and married again... and now they are accepting them, or they are inviting them to return. The Church can't turn its back on a new family. It makes sense. But imagine that... in the past that is what they have done! So that's why we have the

Anglican Church [laughs]. So, all the homosexuals... now everybody is being accepted inside the Catholic Church... so they are just accepting everything that years and years ago they didn't.

...

Not only the Catholics, but I wonder if the other religions did the same – yes, other religions did the same. They started to accept more and more, because the Baptists years ago they were not allowed to drink alcohol, but now they accept it. And, why do they accept it and remove part from the Bible that.... there is a part from the Bible, Leviticus that they just removed! Image that – just throw away a whole section! So they are now stable.... and I could see a lot of people returning to the church... by making it more flexible (I2)

Both of these interviews indicated major change that it transpiring in the Catholic Church. However, some of these changes make people feel uncomfortable. I was very surprised when one of my interviewee's identified an image that I originally chose because I thought it represented the Pentecostal/Evangelical movement, as Catholic Charismatic:

CML: when you see this photo [Image 2] what do you think?

[Long pause]...it is Protestant service or a Mass.

CML: When you say Mass do you mean a Catholic Mass?

Yes, because there is a new movement, a new charismatic movement in the Catholic Church. And the new charismatic movement is quite similar to the Protestant services... because people pray like this, they cry out; they scream... this is Charismatic, yes. I am not charismatic. I am traditional Catholic.

...

In Brazil we have a priest named Father Marcello Rossi and he built a church for 3000 people. And the people they behave like that. And you know the blessed water? He has a bucket of blessed water and he throws over the people [laughs] washes over everybody [laughs]. This is not faith. Faith is when you go to the church of Our Aparacida and see people crying, crying... Does it have rules like the Catholic Church...?

No! [In a sing song voice] "Ok, you come here, you participate in the service and go back home, I don't have rules for you – do whatever you want!" [Pause... silence] (T3).

As well as highlighting the struggle that some people have accepting the evolution of the Catholic movement, this vignette also illustrates the difficulty of pigeonholing or pinpointing a particular religion anywhere on a continuum of rules and norms. Set within the logic of MLS, it would appear that change is predictable as religions work to strike a balance between the functional needs of the religion and the needs of the individual.

In the following first person account, one of my interviewees described how, in her lifetime, the rules and consequences on sex before marriage had evolved in her “very conservative” Pentecostal church:

...in the past, a long time ago, my grandfather said that... even at the pulpit, he said "if you cheat you don't go to heaven and blah, blah blah..." [makes an impression of a person giving a fire and brimstone type sermon] ... our religion is very conservative. But when this happened inside his own house, with his own granddaughter [pause]... Before this happened he said if you decide to do something [have sex] before the wedding, you won't have salvation and you won't go to heaven. ...and it happened to me... [pause] ... it also happened to his son, my father [pause].

So, my grandfather, he decided to be mature, and ask for God's advice, and what he told us God said to him was "God doesn't change, the beliefs are still the beliefs... but the world is changing, and what we need to do is prepare the people to be their own church. Your body is the temple, you need to believe, I need to guide, to be the guide, and show the way by explaining to the people how to live and how to be comfortable"... He said "I go, but I leave with you with my counsel, and my spirit comforting you" and that's what my grandfather said. ...

There were consequences for me [she was shunned in the church]. But the time passed, and but I still go to the same church... I believe I

have salvation. Today everything changes; this happened with my family, this happens. (G3)

For G3, the rules and consequences flexed and altered enough for her to stay with her family religion. Set with the logic of MLS, in evolutionary terms we might call these “decision-making forces” (Campbell 1965). Although there are similarities between cultural and genetic evolution, culture differs from genes in that humans are passive recipients of their genes but “active decision-making agents” with respect to culture (Richerson and Boyd 2000).

Humans “can pick and choose among the cultural variants that are on offer in the population, and often modify what they originally imitate on the basis of experience. While each individual’s marginal choices have only a small effect on the cultural traditions of a society...by cumulating over repeated passage through many minds, individuals’ decision may ultimately transform their culture” (Richerson and Boyd 2000).

This was exactly the case in G3’s grandfather’s interpretation of God’s word, after several generations of his family had sex outside of their marriage.

Sometimes despite changes made at a group level, the rules are so exclusionary and inflexible that a new religion results. G2 touched upon this as the underlying rationale for formation of the Anglican Church: he argued that they took an opposing stance on divorce from the Catholics and thus attracted individuals shunned by the Catholic Church. Similarly, he felt that the Baptists took a different stance from the Catholics on the use of alcohol. In these cases, the collective sum of these individual’s needs sparked the formation of a new religion. Several of my interviewees explained a recent similar situation in Brazil where one group of individuals felt isolated enough by the all religions to form their own religion.

Igreja Bola de Neve (Church of the Snowball) is a church that started in Brazil for just that reason. Several interviewees described the rationale for the formation of this new religion:

.... it's for people who were on drugs mostly, so they formed their own religion because they were not being accepted. ... it's mainly frequented by young people who like freedom and extreme sports, surfing, skateboarding and stuff, and have experience with drugs and stuff.... they could not go a traditional church because people would not accept them as they were. For them, there were too many rules in the traditional church. They would rather form a group where everyone understands their issues. Religion does serve this purpose: if we understand each other, we can pray for the same goals, we can support each other better (G2).

These changes are examples of cultural evolution in action: religious groups are consciously, or unconsciously, adjusting, reevaluating and renewing their rules and norms to maintain or gain membership.

Discussing PH1-2: We Inherit Religion from Our Parents?

PH1-2 predicts that when a conflict occurs between the individual needs and the group's strategy, the individual may undertake non-group sanctioned initiatives, and will depart from group mandated strategy to achieve these needs. For example, claim to have received a divine revelation from God stating that divorce, in their case, was an acceptable option. Furthermore given the option, the individual may change their religious group affiliation all together.

In the previous section I discussed how a group may evolve adaptive traits or change in effort to maintain membership of individuals in the group, but this does not always work. If the rules and norms are unacceptable, or do not provide for individual needs or do not make sense, people may challenge, question and change their religion.

Before discovering what people's 'real' beliefs are, it would be easy to conclude that people inherit their religion from their parents. This "unbiased transmission" (Boyd and Richerson 1985) of religious affiliation from parent to child is a widely assumed to be truism often stated categorically as common knowledge or 'fact'. Richard Dawkins used this 'fact' as the basis of several of his influential arguments: "... the world over, the vast majority of children follow the religion of their parents rather than any of the other available religions" (Dawkins 1994). Indeed from an evolutionary fitness perspective, there are quantifiable benefits to the group when children faithfully inherit their religion from their parents (Rowthorn 2011).

This unbiased transmission assumption has recently been explored and challenged by several European scholars using large quantitative datasets (Voas and Crockett 2005) (Güngör, Bornstein, and Phalet 2012; Scourfield et al. 2012). Voas and Crockett found that, in Britain, children were only half as religious as their parents (Voas and Crockett 2005), however Güngör, Bornstein, and Phalet (2012) and Scourfield et al. (2012) both found the situation to be far more complex and dependent on the type of religion, one's definition of religion and the rapidly evolving use of the term 'spiritual', and other mitigating factors including ethnic identity, socio-economic factors and maintenance of cultural heritage. Specifically Güngör et al and Scourfield et al.'s data demonstrates that adherence to Islamic religion is on the rise, and not halving as suggested by Voas and Crockett's British study (2012).

My initial findings may also support the impact and strength of ethnic identity and maintenance of cultural heritage: this was discussed in the section entitled

“Everyone in Brazil is born Catholic,” where I discussed the impact of the Catholic Church on the population and how it manifested itself in ‘ideal’ representations of reality. Boyd and Richardson would refer to this faithfulness as a “frequency dependent bias” (Richerson and Boyd 2005) and I have argued elsewhere in this dissertation that this is the ‘ideal’ religious affiliation overtly adopted by most of the people. The ‘real’ or true belief systems, however, are different from reported beliefs.

After establishing rapport and revealing the ‘real,’ in this study only six out of twenty-two individuals (27%) appeared to have inherited their parent’s or guardian’s religion. seven out of twenty-two (32%) adopted a pluralistic stance keeping some of their religious heritage while also adopting some of another religion, and nine out of twenty-two individuals (41%) entirely changed their religious beliefs. These data were presented in Table 2.1.

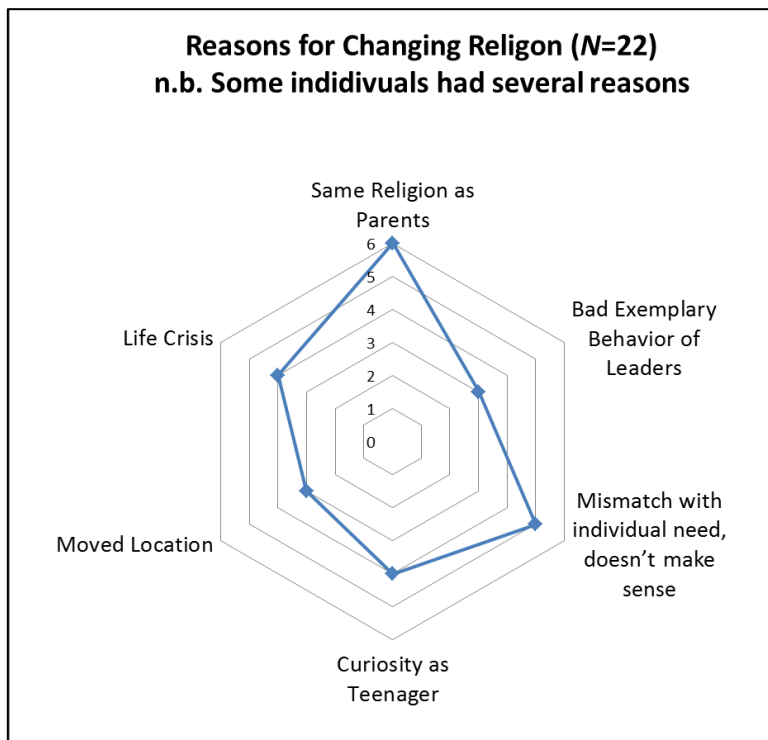
In an article reviewing the literature and exploring the relatively new psychological field of religious inheritance and change in emerging adults (eighteen to twenty-five year olds), authors found indirect influences such as “other adults, peers, and the media” play a large part in people changing their religious affiliation after adolescence (McNamara Barry et al. 2010). Boyd and Richerson would call these factors influencing cultural evolution, “biased transmission”: where “individuals select from alternate cultural variants” (1985), or in terms of this study, individuals choosing to change their religion.

Individual Choices: Conformity and Conflict

Why do individuals change their religion? Can factors that contribute to the change be analyzed using the logic of MLS? Despite the group mechanisms adopted to keep the faith, as described in the previous section, seventy-two percent (72%) of individuals in this study either changed their religion completely or adopted a pluralistic stance incorporating some of their parent's beliefs with other beliefs.

When the rationales for change were analyzed using the logic suggested by MLS, together with social learning heuristics and biases (Richerson and Boyd 2005; Gigerenzer and Selten 2001), two types of rationale for change were noted. The first involved an attempt by the individual to fit into or conform in a new group when they moved to a new location. The second occurred because the group's rules, beliefs or behavioral norms mismatched with the individual's immediate psychological or sociological needs. The distribution of rationale for individual's changing their religion is graphically illustrated in Figure 3.6. Please note that some people had multiple reasons.

Figure 3.6 Distribution of rationale for changing religion



Moving Location and Fitting into a New Group

When I went to the US, the prominent religion was Protestant. In New York particularly – and I found it was very important in America – people asked what religion I was. It was funny cause guys didn't want to date me or go out with me – there was tremendous discrimination against Catholics... and I'm not dumb – right? – so I went to a Protestant church! Yeah! I just felt it was a terrible encroachment on my personal life. I had to say something. It didn't matter what I said. I was damned either way. So I said I was Protestant. If I said I was Catholic I was damned and if I said nothing I was also damned...(C1, now Agnostic)

In this vignette C1 describes how she changed her religion to fit in with the majority and gain acceptance by the larger group and find a boyfriend: a frequency dependent, content based biased transmission. Two other of my interviewees also changed their religion

when they moved to a new location and were looking for a new support network. This network appears to have provided psychological support by supplying an outlet for pent up emotional need and a sense of belonging:

... we suffered a lot... I had no job, no healthcare or hospital...I didn't have the same opportunities for good education... I needed to find a release... something to make us feel important. We needed people to see us. Many times we felt like the society did not see us. This [new religion] gave us a way to be seen... and to feel happy (W1, after joining the Evangelicals)

Additionally several interviewees noted that, although they did not necessarily change their existing type of religion, after relocating their religion supplied sociological support by providing for example, child care (G2) and employment opportunities (I2, R3).

These psychological and sociological rationale after relocating are echoed in many of the sociological theories of religion discussed in Chapter I of this dissertation, and reiterated in historical analysis of Calvinism provided by D.S. Wilson's *Darwin's Cathedral* (2002), along with modern day examples in the same book which discuss the findings of (Kwon, Ebaugh, and Hagan 1997) in their Houston Korean Church study. Collectively these examples are a combination of context and content biases; people analyzed the content of the religion in relation to their new context.

Conflict between Group Norms and Rules, and Individual Needs

At times, a conflict occurred between what the individual needed, and what the religion provided. In this subset of rationale, reasons individuals changed their religion fall into two main categories. The first category results because of bad exemplary behavior of religious group leaders. The second category results when the rules or norms of the religion are in opposition to the individual's needs; in that the rules fail to

satisfy an individual's intellectual curiosity and personal exploration during adolescence; or later in life, when the individual experiences a personal crisis and their religion fails adequately address these crises.

Bad Exemplary Behavior of Religious Leaders

... I lived with a Catholic family. I was baptized at eight, and went to the First Communion and all that....until I had a bad experience with the priest (makes face inferring sexual advances). I was only thirteen then... I said "I don't think so!" That turned me off from religion right then and there, and particularly the Catholic religion because I didn't know any other religion. (C1)

I believe that people started to think about what the Catholics did wrong, and we had some scandal from the priests molesting children. They have here a lot of.... they say here that that they can't sleep with woman... but they have a lot scandals here about having affairs with women, affairs with men, sex with kids.... then when people start to see those things, they start to not agree with the creditability of the these guys [points to image 1]. They say that they don't have women, because they are celibate for God, but we know that that is for money (E1)

It is not only the Catholic leaders that are condemned for their bad exemplary behavior. Many people, in this study, noted the bad exemplary behavior and ulterior motives (mainly monetary) of the Evangelical or Pentecostal leaders. Nine out of the twenty two people interviewed independently commented on this: words used to describe these leaders include "manipulative," "brainwashed" and "deceptive." These comments are detailed in Table 3.1. Some found this behavior by bad leaders enough to change to a similar religion lead by a different pastor or priest or leader; although in some cases they sought out a completely different religion.

Some admitted that sometimes, simply the oration style of the leader was not enough to hold their attention, so they tried other places:

...many times I go to the (Catholic) church and the priest is not good... the priest is saying something that I am not focused on. When I go there, I know it is the right thing to do, and everyone is praying, but I am not paying attention. I am Catholic, but sometimes I go to the Spiritismo church to check and see what they say... I really like it when I go in there (I1).

The bad exemplary behavior of the religious leaders is the reverse of a “model” or “prestige based transmission bias” (Richerson and Boyd 2005). Instead of an individual following the model beliefs of the prestigious individual (the religious leader), they perceive the prestigious individual to be doing something wrong, and thus they look for an alternate religion.

Fail to Satisfy Individual Need

As already discussed, a new religion can emerge as a result of the rules of the religion not satisfying individual need. This was noted by G2 and T2 and their beliefs surrounding the formation of the Anglican and Baptist churches, and the birth of the *Igreja Bola de Neve*. Formation of a new religion is one strategy for change; however, at times the individual may simply change to a different (or no) religion that satisfies their needs. The rationale for change fall on a continuum: from adolescent intellectual curiosity (O2, N1, I2 and R2); to the rules of this religion “just don’t make sense” to me (I1, T2, F2, O2 and R1); to the rules of my religion impact my survival (T2). Specifically, in T2’s case, the strict rules about the types of clothes she could wear (or not wear), the restrictions on smoking and drinking and not “going to bed” with men hindered her ability to make a living as a prostitute, the profession that gave her ability to survive and financially support her family.

Although not necessarily in survival mode, others simply questioned the content of their religion during adolescence:

Criticizing religion has led me to have a more open mind on everything: on a gay agenda, on a drug agenda, knowing that I'm not perfect and that I have my sins. I can't shun someone who's a drug addict, cause I can't be better than him - the only difference is that his problem might be drugs, and my problem might be pornography. These are all things that impact families: however pornography is a lot more socially accepted, but it doesn't change the fact this is something that be not beneficial to people. It has led me to a lot of internal thinking to try and understand these things (T2).

I am really focused on religion, and I believe that religion directs my life in some points. I studied a lot about the religion that I eventually chose... I came from a Catholic family, with a very strict grandma... she is one of the churches keepers where she lives; she has a lot of responsibilities. I had three great uncles that are priests, I have aunt that is a nun or sister.... and I decided to move from Catholicism to Umbanda, because there are some points of Catholicism didn't make any sense to me (O2).

Collectively these justifications are content based biased transmission or heuristics. The content of their current group rules or norms does not mesh with the individual's psychological or sociological needs, whereas the content of different set of beliefs, or different religion potentially does.

At times, these choices are in direct conflict with parental directives or wishes. The following interview excerpt from N1 describes how she changed from Catholic to Jehovah's Witness (JW):

When I was seventeen I wanted to become a nun! I was going to go to the South of Brazil to stay for one year. But my father said "No! I didn't have a daughter to become a nun"... my father would not let me become a nun!

CML: But at the time you wanted to do it?

Yes! I was very sad, because I would have liked to have gone – but he didn't want me to go...because he knew about the bad side of the Catholic Church. That's why. [pause]

CML: So are your parents both JW?

No they are Catholic. I was born Catholic and I stayed in the church until I was 18 years old.

CML: And then what happened?

I was active in the Catholic Church, but I started to read the Bible by myself and discovered some things about images and things that were not in line with what God requires of us. So I stopped going to the Catholic Church – my father was very shocked. Because my family was very active in the Catholic Church... not just going on Sunday – they go during the week. So... and then I stayed one year in the Methodist Church, then I started to study JW, and stopped going to the Methodist Church. Because their (the JW) Bible study classes makes sense of the Bible.

CML: So just to clarify: you started in the Catholic Church, then Methodist, then JW. And you did this by yourself, right?

Yes.

CML: So why did you choose the JW church over the Methodist church?

Why? Because it's the only church where we do exactly...we try to meet the expectations of Christ. To do what he came to do when he was on earth. And to spread the good news to the whole earth...Because that there are still people who don't know about the Bible. We know at this time there are people that won't believe, because of the system, because the government is not from Jehovah. That's why we see suffering, people eager for food, so many inequalities, and people with a lot and others with a little... nothing to eat, no place to live... that's why we know that soon it will come: a new government will be established. So that's why I believe, and I really try to do what Jesus said.

The reasons N1, and several others that I interviewed, changed her religion resulted from adolescent intellectual curiosity. This is hardly surprising as “adolescence is a critical time for self-awareness and exploration” (Lopez, Huynh, and Fuligni 2011).

Unfortunately, “there has been a lot of research about adolescents’ social identities in the areas of ethnicity and gender but very little on the role of religion, and even less work on the degree of religious identification” (Lopez, Huynh, and Fuligni 2011; McNamara Barry and Nelson 2008). This is an area of academic enquiry that appears to be lacking and especially important because, in my sample alone, twenty-two percent of people that changed their religion changed it in part because of adolescent curiosity. In short, the adolescent evaluates the ‘content’, or rules or norms, of the religion and finds that something does not make sense or mesh with individual understanding. I feel this is especially important in today’s information obsessed world; the spread of the internet and other forms of information are more readily available to everyone. As individuals become aware of alternate options, the rationale for changing one’s religion will surely be on the rise.

Life Crisis

The final rationale for individual change is similar in explanation to the previous group; the content of the religious group’s rules and norms do not mesh with the individual’s immediate needs in a personal crisis situation. In every case but one, the personal crisis examples all involved a life threatening illness of an immediate family member (E1, F1, G4 and T1). In addition, it should be noted that several interviewees noted how their parents or close relatives had also changed or reevaluated their religion on their death bed or when gravely ill (T2, V3 and F2). The final outstanding life crisis that invoked change was sparked by the loss of livelihood, as described in F2’s opening vignette to this chapter.

What is interesting, about these changes resulting from life crisis, is that in every case the individual turned to a religion that included some of the more public or overt P3 norms discussed in the beginning of this chapter: namely Afro-Brazilian, Pentecostal and Spiritism. In these more overt P3 conditions, other group members are aware that the individual has problems, but do not necessarily get to hear the entire specifics of their problem. The following example from E1, who originally identified as Catholic, illustrates this type of life crisis driven change. E1 had just described to me the impact on her family when her mother unexpectedly died:

I know everybody dies... when we are born we know that. Death is not something new.... but that was [clicks her fingers multiple times] very [clicks her fingers].... oooohhhh... that devastated us. Because when a person is really sick you can prepare yourself.... but she [her mother] was in very good health....

After that I had to ... a very, very hard time, because my oldest brother and my sister they stopped eating because my Mom passed away. And they started to be depressed, and then they got Dengue³... both of them! And my brother he has that disease that makes you bleed, hemophiliac... and he almost passed away too...and that was three weeks of suffering a lot. His heart stopped once... and if he hadn't of been in the ICU, he would have died. My father didn't know this – everything was on my shoulders. When we told him much later – at the time he was still suffering with the shock of my mother – he said that if we had have told him he would have died. My brother, thankfully, recovered...[pause]

...but just as he stopped bleeding, my sister started with the cancer. Jesus! I have been having a hard time... just when I start to breathe.... Jesus! A friend of mine told me that life is like a credit card: sometimes you get the credit and other times you are in debit! [Laughs] God! Stop the Debit!

....

³ Dengue Fever is a viral disease obtained through a mosquito bite.

She has cancer of the stomach and now she is doing chemo – oooooohhh! Her chemo is every twenty one days... so we go there [to Campos, a four hour drive away], stay four days, after that she comes home and stays.... and then she goes back. She has to do this six times... she has already done three times... she is doing OK... in her situation, the doctors have said she is reacting OK.... good for a bad situation... after that we will see if she needs something else, radiation or an operation... but it's very hard, very tough...[long pause]

CML: You have lost so much weight....

Yes... I have lost about 9kgs... I am just bones... because we never expected that.... she always had some stomach problems, gastric type problems... but we thought that was normal. She doesn't like to eat much. She is very skinny. And when we arrived at the doctor's office... me and my brother... the doctor said it was something very serious... so I called my aunty, my other brother, my cousin... and we entered the doctor's office and he said: "You have cancer, I am not going to lie to you.... blah blah blah...." My sister, she started to cry and cry, and she left the office... and she wanted to throw herself in front of a car. She scratched my brother... because for her now it was like a death sentence. It was very traumatic.... it was very oooooop [raises hands to her face].... but I did what I could for her. Jesus!

I went... it's so funny [laughs].... there is a Protestant church.... there is a pastor who is very powerful in Brazil... he performs miracles for people... I went there with her. I got my car, I called a friend and I paid him to help, I took her to that church – there were 9000 people! She was very weak... and in the middle of the crowd... she started collapse, and told me to take her home, she was very bad... In desperation, I started to cry and scream, "My God! My sister is dying!" And people started to help me to move towards the front. He talked to her, and prayed very hard that she would be cured. I did what I could! I wasn't so proud! I did the best I could do for her. Because.... I know that everything is God's decision.... but I wanted to feel I could do the best that I could.

In this vignette, E1's seemingly never ending string of life crises, and the promise of a potentially miraculous cure, drove her to another religion.

Individual Choices Summary

Set within the framework of cultural transmission and learning heuristics and biases, one can see that rationale for changing one's religion covers the gamut of rationales. These utilization of these heuristics are summarized in Table 3.4

Table 3.3 Heuristics used for changing religion

Type of Heuristic			Impetus for Heuristic	Possible Resulting Outcome
Unbiased Transmission (Boyd and Richerson 1985)			n/a	Inherit religion of parents
Biased Transmission (Boyd and Richerson 1985)	Content Biases		Mismatch of rules and norms with individual psychological or sociological needs	Question rules and create, change or lose religion
			Perceived outcome of norms do not address personal life crisis needs	Choose another religion that addresses crisis situation
	Context Biases	Frequency Dependent	Move to new location	Adopt the majority religion of the new location
		Model Dependent	Bad exemplary behavior of leader	Find a new leader (or new religion)

This analysis illustrates that there is no one specific heuristic used to determine whether or not a person changes or keeps their religion, however given options, people definitely do not automatically inherit and retain the religion of their parents. Furthermore, while no one specific heuristic can be used as an overarching explanation, collectively, the logic of MLS unveils two types of rationale for change: an attempt by the individual to find a new group that provides for psychological and sociological needs; or a change that

results because the group's rules, beliefs and behavioral norms are a mismatch with the individual's immediate psychological or sociological needs.

In today's highly mobile, interconnected information filled world, where the dynamics of the family unit is constantly changing and where people have options, I predict that we will see even greater movement of individual's between religions, and greater rates of change of the rules and norms (i.e. adaptations) within religions.

Conclusion

This chapter started by describing the difficulties of obtaining the truth about people's religious beliefs. I believe, in the case of this study, this truth is oppressed by culturally endorsed mechanisms or adaptations used by the dominant religious group – in this case Catholicism. This creates a type of 'Catch 22' or "ratcheting effect" (Henrich 2009) in that frequency dependent content bias in turn promotes coercive harmony and upholds the wide spread notions of 'ideal'. This superficial level is reported by census statistics, and thus widely assumed by the outside world to be the truth. This superficial level of reporting may also help to perpetuate the myth that the majority of people inherit their religion from their parents. If one is able to penetrate this powerful feedback loop, we see a somewhat different story.

Using logic of MLS, we see a dynamic and constantly evolving relationship. On one side we see group level adaptive mechanisms, in the form of beliefs, rules and norms that are potentially used to maintain and grow group membership. These rules and norms potentially ensure conformity and cohesion. These data highlighted two potential adaptive mechanisms that the group may have adopted to achieve this.

The first adaptive mechanism highlighted is the use of negative out-group stereotypes. These stereotypes may serve to maintain within-group allegiance, but also potentially illustrate the “dark side” of the MLS selection models and how they facilitate out-group antagonism (Choi and Bowles 2007).

The second adaptive mechanism highlighted, suggests that the religious group may control how individual the communicates their concerns and needs. By quantitatively categorizing the data in Chapter II, and then further exploring this phenomena in this chapter, evidence suggests that the group has adopted norms, enforced by religious doctrine, that mandates how, when and under what conditions an individual may voice their concerns. These controlling adaptive strategies in turn may promote group unity and allegiance, but at the same time may curtail individual behaviors.

Furthermore as anticipated, there were several instances where the group changed or reevaluate norms in order to appease unsatisfied individual needs within a larger group. Although data is limited, qualitative evidence from this study suggests that the religious group may reevaluate its stance on a specific subject and change the rules to appease individual needs. This was the case with G3’s grandfather changing his stance on sex before marriage, subtle changes in protocols for personal conduct at Catholic masses, changing use of collective punishment and power of assistant priests to administer Holy Communion in the Catholic Church, and the drastic procedural changes noted in the Charismatic Catholic movement. Conversely the group may split and form

an entirely new religious group, as was the case with birth of the Anglicans, Baptists and Church of the *Bola de Neve* (Snowball).

On the other side of the equation, we see individuals trying to fit into the religious group and/or using different heuristics to evaluate the religion's beliefs, rules and norms in relation to their own needs. Because each religion has different rulings and norms of religious behaviors (i.e. have adopted different adaptive strategies), individuals may have a wide range of options to evaluate using their biases and heuristics.

Furthermore, because individual needs change over the course of a given lifetime, as noted by the enquiring nature of the adolescent mind and the change of individual needs during life crises, a religion that might suit an individual at one point in their life, may be completely unsuitable at another point.

PH1-2 predicted that when conflict occurs between the individual needs and the group's strategy, the individual may undertake non-group sanctioned initiatives, or will depart from group mandated strategy to achieve these needs. Data in this study suggested this was the case. Just being born into a religion is not enough to ensure continued membership; as demonstrated, when presented choices, people do not automatically inherit and subsequently pass on their parent's religion.

The dynamic and evolving relationship between the group and individual is constantly in motion. Multiple forces push the two together, and multiple forces push the two apart. This, many of the theories of religion discussed in the introductory chapter of this dissertation have merit: the individual psychological and sociological based theories, the within-group shared theories that stress the importance of shared cultural norms

which reinforce solidarity, and the between-group theories that argue the merits of a competitive advantage over other groups. It is for this reason that I hypothesize that there will never be one world religion. Neither the group nor any individual will ever need exactly the same thing at the same time. Change is the one constant in life.

CHAPTER IV

OFFERING, SIGNALING AND WITNESSING

I remember seeing a recent offering on the beach: three big earthenware flat platters with three big cooked fish in each one... each one with a bottle of wine or Cachaça [local sugarcane alcohol] ... and a goblet, and candles and match by each one – three of them! Also with flowers in the middle – it’s like a table was set.... And I kept looking at that and I kept thinking: Gee, look at all the money that went in all that stuff... and how many people could that have fed? There are so many people hungry here in Brazil – you don’t have to go to Bangladesh or where ever. Fish are very expensive, and those were BIG fish. And my husband [who is not Brazilian], kept saying “why don’t you grab to pots”? And I said, “no way!”.... So that was my first thought – what a waste of money – to have things going rotten.

...

We’ve seen several events where they put out the offerings: I think I remember more about the group of people that were over here [points down to the beach]. They had common offering place where they would come and put something in, a candle and a flower – we could not see exactly what they were carrying all the time, because some things were small, like money or something else... and they would put it there and there was a group of them, could have been friends, but I guess it was a family, because they were different ages... and they would come one at a time and do something like pray – it appeared that they were praying – sometimes they would get on their knees and sometimes they would just crouch. And they would light a candle, and then they would walk towards the water and then walk back up to the group. The group was on the sand about ten feet away from the offering place. It was not a very big group – maybe eight or ten people. They came out one at time and did something.

After they left we went down onto the beach to look at it. They had twelve nice newly minted Reals [Brazilian currency] in coins all the way around in the circle, and in the middle they had wine, and flowers all the way around, matches and everything that goes with lighting the candles and wine and goblets.... plastic goblets... Their ritual went on for quite a while – maybe half an hour.

It looked to me as if they were doing it for acknowledgement or thanks – it didn’t look evil. It didn’t look at all like the *Macumba* people

talk about – it didn't look evil... it might have been they were praying for someone who died – it was sad... but no one was crying.

Then there was a couple over here [she points to another spot on the beach]... I remember now.... They had two circles in the sand about a foot from one another – both had flowers, and seemed to have things that were for children. And they kept getting back together and walking to the water and then walking back to the two spots. And it looked to us that they were crying over something that was sad – they were putting their arms around each other. I guess that they were praying for children, or a child they lost. We didn't go and see – we didn't want to disturb them. We saw them walk back to their car, and they were not smiling and happy, but they seemed relieved.

So there seems to be a lot of emotion in it.... Yeah [stops talking for a long time and thinks]. I think I am more inclined towards the Macumba stuff, because they are doing stuff that is more personal, you know more spiritual – their own beliefs. I have a picture, my niece's husband's parents, and they are holding hands on the beach – just like this picture [Image 3]... this niece of mine calls herself Umbandista... I don't know the difference between Umbanda and *Macumba*... [she looks down and tries to remember]they were at the beach on New Year's Eve and holding hands and looking over the water. I was amazed by it... they must have been in their 60's... and they were holding hands, and caring when they were together. It was such a nice picture and it was very much like this picture [Image 3]... and I never knew this part of them – and I am very close to them, and didn't know they believed and practiced this stuff. Kind of nice to see... (C1, 82 year old female Agnostic)

I met C1 on my daily walks along the beach. C1, an energetic, red haired and freckled white Brazilian woman, was born of German immigrants who settled in the rural areas of South Eastern Brazil nearly 100 years ago. I was keen to interview her primarily because she now had an apartment overlooking the beach, where she sometimes had a bird's eye view of people coming to place *oferendas* (offerings) in the middle of the night. As our friendship developed, C1 shared these observations with me.

I have used this excerpt from my field interviews for several reasons. Firstly it describes the physical evidence of an Afro-Brazilian religious *oferenda*. Collectively

outsiders, or non-practitioners, use the somewhat derogative term *Macumba* to describe oferendas (Brazeal 2008). The word Macumba is multi-faceted in that: an outsider might use it to describe any perceived negative aspect of the Afro-Brazilian religion, such as offerings, black-magic, witchcraft or loud, smoky, late night drumming rituals and festivals; it can also be used as the name for the drum used in Afro-Brazilian religious rituals; and has more recently been adopted by some practitioners, or *Macumbeiros* (practitioners of Macumba), to describe their own religion. In other parts of Brazil, oferendas could be referred to by other names, such as *despacho* (meaning an order or dispatch to the Gods). Secondly, this excerpt discusses the very private nature of the oferenda experience. Finally, it touches on the respect, fear, and costly or seemingly wasteful nature of the behavior. It begs the question: why would anyone do it? It was a question I frequently asked myself: Why do they do it?

In this chapter I will provide a short history of oppressed nature of Afro-Brazilian religious practices, and describe some of the oferendas I saw during my time in Brazil. Using data from my interviews, the logic of MLS and expanding on a framework suggested by Henrich (2009), I present a hypothesis that the manifest actions and proximate beliefs perpetuated by the signaling actions of the individual (the physical oferendas) elicits fear and respect in the out-group (latent outcome), which in turn enables the survival (ultimate function) of the in-group despite oppression and stigmatization. This hypothesis marries the logic of MLS with costly signaling, and potentially provides evidence that costly signals are not bound only to individual or with-in group benefit.

The Oferenda

Over the nearly two year period I spent in the field, I became known as the *louca antropóloga estrangeira* (crazy foreign anthropologist) who was ‘playing with fire’ by exhibiting an unhealthy interest in oferendas: a normally taboo subject matter. Once it was established my interests were purely academic, I developed a network of spotters. I would receive emails and phone calls updating me of new oferendas and their locations. If possible, I would race to the oferenda site as soon as I could, in an attempt to record the fresh artifact before it was eaten by street dogs, destroyed by natural forces like rain, wind or waves, or disturbed in some other way. I would often attract stares from strangers and passers-by as I photographed, but out of respect, never touched, the oferendas. At times people would stop and ask if I was ‘all right’ or needed assistance; touching and to a certain extent even acknowledging the oferendas existence is taboo. I would have to explain my academic interest and assure them of my sanity.

I initially attempted to be culturally sensitive to the taboo surrounding the oferendas, by trying to disguise my interest and surreptitiously record their contents. While local people almost always avoided the oferendas, they always were very conscious of where they were, and any person that was near them. I would pretend I was photographing other scenes on the beach or street, and actually zoom the lens of my camera in on the oferenda from a distance. Or I would walk by the oferenda slowly, pretending not to look at it, while mentally taking notes. These strategies resulted in poor quality photographs and field notes. In the end, I decided to live up to my reputation, as

the crazy foreign anthropologist, and defy local taboo conventions. Armed with camera and notepad, I confronted the oferendas head on.

History

God is the weapon that is in my pocket (W1)

Oferendas are given as gifts or offerings to any one of a pantheon of *Orixás* (Gods or deities) that are venerated as part of several interrelated Afro-Brazilian religions: namely Umbanda, Quimbanda, and Candomblé and some forms of Spiritism. Because many excellent resources are available describing the history of conflict and fascinating syncretic nature of Afro-Brazilian religion, minimal space will be devoted to the topic here. (Bastide 1978; Brazil Ministry of External Relations 2013; Brown 1986; Capone 2013; Hale 2009; Hess 1992); however for purposes of historic orientation a short overview is provided.

Known by different names to different people and coming a variety of different manifestations, collectively Afro-Brazilian religions are a syncretic mix of diverse African religions, including but not limited to Yoruba and Bantu, together with “Amerindian, Catholic and spiritist cults” (Bastide 1978; Ramos 1951). Afro-Brazilian religions venerate a pantheon of gods or deities called Orixás. Collectively, Afro Brazilian religions incorporate elaborate rituals and performances that

...work to preserve life with its abstract problems of meaning, the universal *horro vacui*, but especially with all its pragmatic needs – financial prosperity, health, love, and fecundity – against the forces of anomie, death and consumption. Initiates seek to expand their axé (creative force) – the power to make things happen (Thompson 1983).

In the Afro-Brazilian worldview, everyone and everything eats and must be “fed”, including the Orixás (Drewal 1992). One of the ways that initiates feed the Orixás and expand their axé is to give oferendas.

This eclectic mix of religions was originally developed by the slaves of Brazil, but has been radically altered over time as primarily as a result of government intervention to control the population for fear of uprisings (Conrad 1983; Johnson 2001; Maggie 1992). It should be noted, that Afro-Brazilian religion is longer just practiced by slaves and their direct descendants. Roger Bastide, a noted Brazilian sociologist, studied police records, newspaper files, interviews and life histories and concluded that in Rio de Janeiro “whites have infiltrated this mystic-magical movement... and removed it even father from its African origins” (1978). In my study the only people who opened declared themselves as practitioners of Umbanda, were *branco/a* (white). Furthermore, scholars and demographers note that the number of Umbanda practitioners and *Terreiros* (Afro-Brazilian meeting places) are increasing in numbers exponentially; for example Prandi notes that in Sao Paulo while there were virtually no Candomblé Terreiros in the 1960’s, by 1980 there were about 2500, and by 2000 numbered about 40,000 (2000).

Over the years, many Brazilian laws backed by the majority influence of Catholic Church elites, have impacted Afro-Brazilian religion adherents, some directly by prohibiting slave “sorcery” and others under the guise of “public health’ (Johnson 2001). The Slave Laws of 1822 gave police the rights to shut down Afro-Brazilian religious drumming ceremonies and incarcerate participants (Conrad 1983). The code of 1890 and it’s articles 156,157 and 158 addressed illegal medicine and dentistry without legal

certification, prohibited the “practice of spiritism, magic, and its sorceries, the use of talisman and cartomancy (using a deck of cards for divination) to arouse sentiments of hate and love” and the promise to cure illness, and forbid the use of natural substances for curing (Johnson 2001; Maggie 1992). Between 1926 and 1944, more than 600 people were accused under these articles (Maggie 1992). These thinly disguised attacks on Afro-Brazilian religious practices were part of an ideological development called the “hygienist movement...crusading under the banner of public health” (Johnson 2001). As such Afro-Brazilian religions were vilified as dangerous to the positive progress of the nation.

In effort to regulate these “mysterious cults”, in 1937 Brazilian President Vargas instituted the “Department of Toxins and Mystifications”. This department went on to decide whether some forms of Afro-Brazilian religions were “legitimate” or “real” and worthy of government protection, while others were labeled as illegitimate and involved “low spiritism” and “sorcery” – in short some were labeled ‘religion’ and others were labeled ‘magic’ (Maggie 1992). Although slaves were emancipated in 1888, these laws remained in force until the 1980’s. Most recently an addendum to the penal code (1984) prohibits the exploitation of public gullibility or naiveté through sorcery, predicting the future, explaining of dreams and the like (Johnson 2001). These government mandated labels created rifts even within the Afro-Brazilian religious communities; some were deemed legitimate religion, and others were labeled magical sorcery. For Afro-Brazilian religions pressure and divisive forces were now coming from both internal and external directions.

Within the religion, behaviors, norms and mechanisms became more and more secretive, whereas out with the religion the highly secretive Afro-Brazilian practices became feared (Maggie 1992). This is not surprising. Simmel notes that secret societies are always “secondary societies” that are formed and defined in relation to the larger encompassing group from which it is distinguished ; frequently the secret society will be feared and branded as a conspirator against public civic authority, but this perception by out-siders may in turn strengthen internal group bonds (Simmel 1906). In support of Simmel’s observations, Yvonne Maggie’s dissertation entitled “*Medo do feitiço: relações entre magia e poder no Brasil*” (Fear of the Spell: Relationships between Magic and Power in Brazil), highlights how the out group fear of the potential magical power of Afro-Brazilian religion behaviors, gave the in-group power. Furthermore Paul Christopher Johnson who specifically is interested in Candomblé notes how

...first, secrecy was essential to a society that had to remain hidden from authorities. Later, when Candomblé became known and actively persecuted, its secrecy became a form of resistance as well as an exotic hidden power desired by elites. Finally, as [it] became a public religion and a vital part of Brazilian culture, the debate increasingly turned away from the secrets themselves and toward their possessors. It is speech about secrets, and not the content of those secrets, that is now most important in building status, legitimacy and power in Candomblé.

One of the positive outcomes of President Vargas decree was the popularization and use of some aspects of Afro-Brazilian religion to bolster the national identity of Brazil. Brazilian Carnival and a widespread cultural passion for Samba dance both celebrate the African heritage. Additionally, before it went out of the business, Varig, the Brazilian airline used “Fly with Axé” as its motto. But perhaps there is no greater example to illustrate the concept of the popularization of the oferenda than on New

Year's Eve on the beaches of Rio de Janeiro (Hayes 2007; Hess 1992; Greenfield 2010), or the lesser known Festival of *Yemanjá* (Orixá and goddess of the seas) annually held annually on the second of February.

On these special nights of the year, hundreds of thousands of practitioners and followers of Afro-Brazilian religions, converge on the beaches of Rio de Janeiro and make offerings to Yemanjá. Adherents ask for blessings and protection for the coming year. Their oferendas contain items that Yemanjá reputedly likes: white candles, white flowers, white food like rice and manioc, shellfish and other seafood, champagne and other alcohol beverages, and in some cases cigars and cigarettes (personal observation). Many people wade into the water and attempt to float rafts and boats containing these items out beyond the breakers; this creates a sea reflecting thousands of floating white candles. The scene on the beach on these evenings is spectacularly beautiful and completely unforgettable. I used a photograph of one of these scenes [Image 3] to evoke discussion in my interviewees.

As well as Yemanjá, two other Orixás in the Afro-Brazilian pantheon were repeatedly referenced in conversations with my interviewees: Ogun and Exú. Ogun is the deity of hunting, politics and war, and thus is often portrayed as a warrior and protector. Often he is depicted carrying a machete, axe or sabre, and often referred to as Saint George by people who disguise their Afro-Brazilian religious beliefs with Catholic symbolism. This syncretic nature of religious beliefs was explained to me on more than one occasion, and explains why Exú is probably this most misunderstood of the Orixás.

Exú comes in many guises. He/she is a shape-shifter, trickster, jokester and partier: he/she likes to drink all kinds of alcohol, smoke cigars and have a good time. As the keeper of the crossroads, and the intermediary or gatekeeper between humans and the other Orixás, Exú is an important and powerful player in the pantheon. Often dressed in red and black, the Christian or Catholic counterpart or syncretic interpretation of Exú is the Devil or Satan (see Figure 4.1). Thus oferendas that are colored black and red and placed at the crossroads are normally interpreted as evil doings by onlookers.

Figure 4.1 Statues of *Exú* and other *Orixás* at a religious supply store



Major, publicly sanctioned, tourist events on the beaches of Rio de Janeiro and during Brazilian Carnival are the exception to the norm. Followers of these religions, and their practices, are often stigmatized as a result of long standing public oppression supported by historic laws and a long history of stereotypes about being unclean, low class or uneducated (Bastide 1973; Ramos 1951) (Brown 1986; Brown 2012; Gumbel 12 Feb 1986; Pinn, Finley, and Alexander 2009; Smith and Prokopy 1999; Trost 2007). This was echoed by my interviewees.

If you say you are anything but Catholic, people think less of you. It is more base or lower. If you say you are Catholic people think it is better, and it is easier (T2).

With the exception of the publically sanction events that promote Brazilian heritage, it is hardly surprising that one hardly ever sees an oferenda being placed; they are almost always done in the middle of the night, under the cover of darkness.

With the exception of the sanctioned events, I personally never saw an oferenda being placed. It was for this reason that I was keen to interview C1. Over the course of four summers of fieldwork in Brazil intimately studying the secrets of only one Terreiro, Historian and Anthropologist Paul Christopher Johnson only recalls witnessing one secretive oferenda made in a public space (Johnson 2002). For purposes of brevity I will paraphrase Johnson's experience.

Johnson as a participant observer notes that, although this was normally the case within the Terreiro he observed, on this occasion there was no blood sacrifice; this oferenda only contained food for the Orixás and there is no mention of alcohol or cigars. He recounts that conspicuously less people than were expected showed up. This particular offering was intended to benefit the Terreiro as a whole. The few people who attended the Terreiro that night contributed something towards the offering: rice, beans, corn, flowers, white cake etc. After much debate

considering the proximity, privacy and risk associated police interference and harassment, the small group set out at midnight (he does not detail actual number of participants) towards a vacant dusty lot a few blocks from the Terreiro. During the ritual he describes how the leader was extremely anxious and “exhorted” that everyone hurry and move as quickly as possible. Once during the hurried ritual, a car’s headlights passed a little too slowly, and brows were furrowed and everyone held their breath until the car passed out of sight. Johnson interprets this as the group entering the public space of danger and bringing pollution from their bodies out of the Terreiro and onto the streets (Johnson 2002).

These field notes from Johnson’s study highlight the private nature of the oferenda and the anxiety and fear held within the group.

Description

Oferendas come in all sizes and configurations. Some oferendas are as simple as a candle or flower at the base of a tree trunk, while others are reminiscent of the provisions one might gather for a party. Often oferendas would include food, including freshly sacrificed animals, candies or fruit, alcoholic drinks, cigarettes, cigars, plates, cups and glasses, table cloths and decorations, party games and costumes (Figures 4.1-4.4).

Rarely a day went by when I did not see at least one oferenda; often I would see several on my daily walks. Once you start to look for them, they are everywhere:

In Brazil you see it all over... especially in rural areas. You might call it Voodoo, but here it is part of life. You see it everywhere... in hidden corners, where fences and walls meet or cross [she made animated arms gestures], at the bottom of big trees, on the beach.... Burnt candles, candies, cigarettes, little statues, sometimes sacrificed dead animals. Lots of people say they don’t believe it – but I bet 99% of people wouldn’t kick the Macumba offering for fear of its power (she laughs) (D1, thirty-four year old, female, non-practicing Catholic)

I initially struggled to understand the concept or function of the phenomena. I knew it was a form of magic or a request for supernatural intervention, but wanted to understand why. My interviewees sometimes simplistically explained that “Umbanda is good, Candomblé is some good and some bad, and Quimbanda is all bad” (E2, 31, female); “good” and “bad” are, of course, relative terms. What can be good fortune for one person, can result in bad fortune for another. For example, when someone loses their job, another person gains the opportunity to fill the position. Further adding to the confusion, the dynamic, syncretic and pluralistic nature of religious beliefs, and the constant use of hidden or double meanings in conversations made understanding people’s messages quite difficult.

Figure 4.2 Oferenda of sweet things: fruit, honey, flowers, candles and beer



Figure 4.3 Oferenda on the side of a busy road



Figure 4.4 Large oferenda at a busy crossroads



Figure 4.5 Small oferenda on the beach



Rationale for Doing It

Regardless of the underlying religious affiliation, as an onlooker, one really never knows for what specific purpose the oferenda is made. It could be good, or it could be bad; my interviewees indicated both ends of the spectrum. In nearly two years of talking to people only one person ever confessed to placing an oferenda. The overarching rationale I ascertained from interviewing and observing in the field was that oferendas are made to please the Orixás: oferendas are given by an individual or family or small group as thanks for, or in hope of, a supernaturally induced personally beneficial outcome (by definition magic). These personal motivations to elicit divine intervention, were frequently reiterated by my interviewees:

They usually give an oferenda to get something... for example: a job, a loved one back, to get business, many things... good and bad things (E2).

...Health, husband, jobs, love.... predominantly personal things. Always wanting something personal: want to have a child, cannot have a baby... never really something professional, other than I want to pursue my career. But there are people in this society that are mean and if they don't like you they use that to do bad things. These are called offerings... these things... I don't like it, usually the people that do that make a pact with the, not the devil, but another thing... (O2)

My only first-hand example can be found in the following excerpt, where T1, a 46 year old male and self-proclaimed follower of Umbanda, describes how he gave offerings in exchange for help during two personal crises:

I ask to have power and opportunity and talent to help Them [the Orixás] and to help myself. I just like to share my gifts with others. Maybe I'm wrong – I am sure I am not. Because, each good thing, each right thing that I do, I receive three, four, five, ten times back. And I know why. It's because God loves me. And I feel stronger things about

Him, a strong feeling. I am not able to love anyone else – only my daughter, and my brother and my mother.... she passed away....

She passed away four years ago. Yep. [long pause and signs]. Around 2002 I left my job... and made many promises to God to save my mother...and I didn't. I set up to save her and he just gave me the opportunity to do that. I gave her one of my kidneys [he stands up and pulls his shirt out of his pants and exposes a large 16" scar across the side of his abdomen] So, she lived around six years after that and she had the opportunity to meet my daughter.... and she loved her.... it is very interesting when God doesn't give you anything but...[long pause].

CML: When you said you made sacrifices to God... do you mean your kidney or do you mean other things?

Actually, my biggest sacrifice was to give my kidney, but I asked Him to save her after that... she had a stroke in 2007... And then she passed away because of the stroke in 2008. I was going to attend a class out of town, and my mother was in care unit and I had to make a decision to stay with my mother or go to the class. I talked to a lot of people and I was sure my mother was going to die... but I went to class and when I came back around ten days later she closed her eyes and died.[long pause]

Yeah... actually my daughter was born in 2005 and my mother died in 2008... It's not sad because I was really very prepared for that. I was sure. To save my mother I asked God, St George [Umbanda Orixá Ogun]. I also asked Yemanjá, the queen of the sea, but this God didn't serve her [my mother], but they gave me courage to face this sad happening in my life.

CML: So you went and gave offering to Yemanjá?

My history is very different, it is very long. In order to defy, in order to... [long pause]. When I had nothing, I promised Yemanjá, I'd bring flowers, roses, for seven years in exchange for some gifts and some opportunities. It wasn't a coincidence: immediately after I started to give the flowers, I received opportunities in the Scholar Federal Technical High School. From then to now, I have multiplied my salary, I think, sixty times.... SIXTY! So... I always like to help others, I always like to share... but I feel that I am very strong with Yemanjá... but also with this guy [He pulls a gold necklace from under his shirt with a medallion of St George]. St George [Catholic name] was a roman soldier a long, long time ago... it is very interesting history. Some people also call Him, 'Ogun'[Umbanda name]. If I say that, here in Brazil they call me a Macumbeiro [derogatory name]...[pause] I'll show you one picture... this is my guy... [he pulls a

photo of St George/Ogun out from inside the cover of the Catholic Bible on his desk]. It's all the same God.

In T1's case, he gave flowers for seven years to help his mother's health, and the second in effort to gain better employment opportunities. T1's oferendas were not given to cause harm to anyone, and were not of the same nature and size as those that included candles, cigars, alcohol etc. Much like the description C1 gave of the oferendas she saw happening on the beach in front of her apartment, they were intensely personal and private affairs.

The potential negative connotation of these oferendas comes when one person requests something that may be to the detriment of another person: for example bad health for a supervisor, or the death of unwanted baby. In the following example: I discuss with one of my interviewees a large oferenda that appeared overnight at a local crossroads. Because of its physical location on the crossroads, most people I spoke with felt that this oferenda sought negative consequences, and because of its large size, sought extreme negative consequences. This oferenda (Figure 4.4) was about twenty foot long and lay at a busy five-way crossing in an industrial district. Seven platters of rice were ceremoniously placed on straw mats which were overlaid with colorful red, white and black tablecloths. Each platter was surrounded by lit candles, numerous lit cigars and cigarette butts, and bottles of beer, champagne and other alcohol drinks each tied with a red bow on the neck of the bottle. The bottles were opened and full. It looked like a table that was set for a party. I discussed this oferenda with one of my interviewees, E2, a thirty-one year old female Catholic/Spiritism/Umbandista who works in human resources:

CML: When you see the oferendas on the side of the road, what do you think?

E2: Yeah - well I don't like it very much. We don't need to spread everything that we believe... we don't need to put it on the streets... because there are other ways to make oferendas... we don't need to do... To put trash in the streets and dirty the place – I don't want it, and I don't like it – it is very offensive to many people and we need to respect people... and I don't like to dirty the streets.

CML: But when you see the big oferendas on the street, like the one down the road the other day [Figure 4.4], what do you think...

E2: I saw it. I hope that it's not candidates looking for jobs...because I hire people [laughs nervously] and that's not for me and for the Human Resources people. This is very serious. Now imagine if you, me and everybody started to put oferendas on the side of the road, on all the streets... trash everywhere. I don't agree. If you want to make an oferenda then Ok, do it in your house... or go to a church and light a candle... there is a space in the church to do that.

CML: So when someone lights a candle on the beach, or in their church, or in their house... what kinds of things are they wanting or do they need?

E2: They usually make some oferenda to get something... for example: a job, a loved one back, to get business, many things... good and bad things...

CML: Personal things? Or things for the greater good?

E2: No, no, no, no, it's ALWAYS personal! I just heard yesterday our ex-ex-president (I think he was in the 1990) he did very bad things, very bad oferendas in his house.

E2 raises a very interesting and befuddling point: why not give oferendas in private?

Why continue to give them in public spaces and risk the social stigma and ostracism that results? In the following example, G1 a thirty-four year old female, non-practicing Catholic describes two examples where she believes oferendas resulted in negative consequences for the intended targets:

Everyone believes it. There was this boss in my office... he was a very wealthy man, had a lot of money. One day he came into the office and someone had placed a Macumba offering in his office... we all saw it (it had burnt candles, cigarettes and a dead chicken) – I was horrified. No one could believe that someone had done it... we all knew it was a very powerful spell. Not long after that he lost his job... and I heard that his life went down the toilet after that... he could never find work again... his marriage broke up.... yes, that's Macumba.

Our family believes that my sister ended up in a divorce because of a Macumba spell... some other woman wanted her husband. Yes – we firmly believe it. She's divorced now. And my Mum was sick for years – that was Macumba too. Everyone believes it. People don't do it to make a decision, they do it to help change their circumstance... do bad things to other people and get what they want... maybe in a job, or money or in love.

In another example, G4, a forty-six year old devout Evangelical woman, demonstrates her fear when conveying the bad things she feels resulted from an oferenda.

CML: Are you cold? [Because I see her lip trembling]

E4: I'm shaking a bit, I'm not cold.

CML: When you talk about this type of thing you are not comfortable?

E4: The truth is that I never talked about it.

CML: Do you think that this type of religion is evil?

E4: I do not know exactly what purpose these people do it, but there are many who do it here in Brazil... [long pause]. Ok, let's just say it: they are doing evil to someone else. For example: if I do not like you, I'll resort to Macumba... I'll visit with the mother of the Terreiro (literally means 'yard' but is also the Umbanda/Candomblé/Quimbanda meeting place) and I will say: "I do not like so and so"... I give her your name. Then the woman will immediately reply the name, and do work to get him out of your life, out of your way. Then I think that's what? It is evil to others. I think this is something that does not please God.

CML: Maybe... but sometimes I see people going to the Catholic Church, but also going to the Terreiro....

E4: Yeah, both. Here, in Brazil, here these two are always together. It is a mixture that is not understood. They use the same Saint. I mean, here saint has a name but already have another name. Let's say that here in the Catholic Church they love St. George, as he says, *São Jorge Guerreiro*...the same St. George, here in the Terreiro is called Ogun. So we see the two together, which is why so many people say, Catholics are also Macumbeiros.

...

CML: When I see things on the street, at the crossroads...what do you feel when you see this kind of thing?

E4: Oh, when I see this kind of thing I know is there evil actions, someone is doing harm to someone wanting to destroy someone's life. I say this because in my own family this has happened. My older sister when she married her husband, the mother-in-law never accepted her. She did not want her son marry my sister. The mother-in-law was very fond of this voodoo. And my sister moved in with him ... they still live together today. But the first son she had with my brother- in-law died overnight from an act of witchcraft.

CML: Do you believe it was an oferenda?

E4: Yes, because she [the mother-in-law] did not want the child; she did not want the marriage. And boy was very beautiful, a healthy boy, had no problem. Then, from night to day the boy got sick, withered and died without explanation.

CML: Without explanation? But all people believe it is because there was an offering?

E4: Many times YES!. When the boy died, we had the funeral. The next day my mother went into the room where he died. Everything was clean, but when she pulled the bed away from the wall where the child was sleeping, there was a used candle on the ground. One candle on the floor...and we did not use candles. Where we lived had no electricity, but we used a lantern... used a lantern all the time.[shakes her head and wipes tears from her eyes] We did not use candles.

What did my mother understand from this? It was the mother-in-law who did the evil offering to kill the child. My mother believes that the mother-in-law did it for my sister, but my sister had more stamina being adult; but a child...an innocent child... it was only two months old. The child died. We eventually learned that the mother-in-law had actually done

the oferenda for them, to separate them. But my sister is stubborn, the mother-in-law failed to separate them – but she killed an innocent child! Evil acts on those who do not have coverage from God.

Collectively I provide these examples for several reasons: Firstly they highlight the ubiquitous yet private or secretive nature of the oferenda in Brazilian culture. Secondly they highlight a potential cultural norm of fear and respect for the oferendas. Thirdly it highlights the impact or influence of the government mandated laws concerning health and cleanliness. I was left with the enduring question: Why do it in a public space?

Cost of the Oferenda

Not all oferendas are as small or surreptitious as a candle under the bed. Some are very costly in a monetary sense. The very large oferendas, like those depicted in Figures 4.3 and 4.4 are costly in that they involve investment of time and money. As noted by C1 in the opening vignette where she described the three platters of fish on the beach, most people do not have this much money to spare.

One of the most flamboyant and costly oferendas I noted while in the field was set on the side of a very busy road leaving town (see Figure 4.3). This oferenda sat on the side of the road untouched for nearly a week before, I assume, being dismantled by street dogs. When fresh, the contents represented a party in a basket. It was comprised of:

- One cane basket about 18 inches across (R\$20) lined with red and white fabric (R\$5) containing:
- three white chickens with their necks broken (R\$75)
- several bags of manioc (R\$3)

- small statue (R\$12)
- packet of opened cigarettes and several cigars (R\$10)
- packet of opened playing cards (R\$1)
- a bottle of champagne (R\$15)
- three bottles of beer (R\$10)
- a bottle of rum (R\$17)
- a bottle of vermouth (R\$20)
- a bottle of bandy (R\$25)
- a drinking glass (R\$2)
- a white top hat (R\$15)

I calculate the total outlay for this particular oferenda amounted to about R\$230, or about one sixth (seventeen percent) of the average Brazilian's monthly salary (R\$ 1,345 per month), or twenty-three percent more than people who earn the government mandated minimum salary of R\$186 per month (SECOM 2012). As stated this specific oferenda was very large in comparison with the majority of oferendas I encountered; most were as simple and as small as a candle placed at the base of a tree, or a small bowl of rice ceremonious placed on the beach.

Personally I feel the monetary cost of the oferendas is secondary: especially if, as Johnson and C1 noted, the components of large oferendas are often a collective of contributions of a group of people. What is more costly is the stigma associated with being labeled a *Macumbeiro*; this is formidable and very real. Historically, people in Brazil were persecuted and jailed for practicing their Afro-Brazilian religions (Brown

1986). The stigma towards practitioners of Afro-Brazilian religion still very much exists in today's culture.

I will never forget a very tearful conversation I had with an elderly lady on Copacabana beach late in the evening on the Festival of Yemanjá. Besides the Government sanctioned, major tourist draw of the New Year's Eve celebrations on the Copacabana Beach, this lesser known festival is one of the few publically sanctioned events where the public placing of oferendas is acceptable – or at least she thought! This elderly lady, dressed in traditional white Bahia costume, had travelled many hours down from the interior mountain region of Brazil to make her offering. As she walked up from the water's edge after placing her oferenda on the beach, she was harassed and affronted by a group of youths: they had yelled insults at her and accused her of witchcraft and black magic. She was visibly shaken by the experience. She sat on a three-legged wooden stool on the edge of the boardwalk of the Copacabana, and shook her head crying. What, in her mind, should have been a reverent, respectful and heartfelt experience had been soured by the youth and their insults. She told me she did not understand the overt and pervasive hatred directed at practitioners of her ancient religion.

Latent/Manifest and Proximate/Ultimate Functions

Thus far I have primarily focused on some of the manifest and proximate explanations of the oferenda. Manifest functions, terminology used in the humanities and social sciences, “are the consequences that people observe or expect” (Merton 1967). When people place the oferendas for the Orixás, they expect something in return:

for example a job, health of a loved one, ill health of an enemy. Proximate explanations, terminology often used in the biological sciences “are concerned with the mechanisms that underpin the trait or behavior – that is, how it works” (Scott-Phillips, Dickins, and West 2011) – or in the case of the *oferenda*, how it is perceived to work. From an in-group or emic perspective, the manifest and proximate reasons people make *oferendas* are because they believe that these offerings will please the Orixás. Practitioners are saying thanks or fulfilling promises or bargains made with the Orixás, in a similar vein to other magical and divinatory practices, like prayer and the “rain dance” (an example used by (Merton 1967). These *oferendas* are appeals for supernatural intervention by the Orixás to solve problems of a personal nature.

Conversely, latent explanations are not explicitly stated, and are “unintended and unrecognized consequences” of the behavior (Merton 1957)⁴. They are normally only identified by outside observers, and thus are etic in their perspective. These unintended latent functions, can also be ultimate explanations.

Ultimate explanations are “concerned with the fitness consequences of a trait or behavior and whether it is, (or is not) selected”; these explanations are central to an “evolutionary explanation” (Mayr 1963). Put another way, ultimate explanations address the ‘why’ question rather than the ‘how’ question. Although not normally used to describe culturally inherited traits, Alcock and Sherman (1994) argue that, in relation to

⁴ Merton’s paper is considered a landmark sociological paper, not because he was the first to note the distinction between manifest and latent, but because he suggested use of the terminology after finding synthesis in a diverse assortment of social science scholars: from Emile Durkheim, Sigmund Freud and Bronislaw Malinowski, to George Herbert Mead and Talcott Parsons .

human behavior, “the ultimate [explanation]... is often based on a theory of cultural selection...and assumes that the history of any culture was characterized by competition between alternative culturally transmitted behavior patterns.”

Explanations that are both ‘latent’ and ‘ultimate’ are not uncommon in the study of human behavior. Emile Durkheim adopted a functional orientation throughout his work, although often without explicitly stating it using the latent/manifest terminology⁵. Durkheim's analysis of the social functions of punishment is also focused on its latent functions and ultimate consequences for the group rather than just the manifest functions and proximate consequences for the individual (Durkheim 1898, 1964).

Many of the theories of religion discussed in the opening chapter of this dissertation analyze beyond the manifest and proximate, and speculate on the latent and/or ultimate functions of the religion. MLS logic suggests that manifest or latent and proximate or ultimate functions can impact any or all levels within population hierarchy. The ultimate explanation could benefit the individual, but it could also be for the benefit of the family or the larger group. For example group worship may have the manifest function of communicating with a Deity, and have a latent function of cathartic release, but may also have the ultimate function of giving an individual an evolutionary psychological advantage when coping with stress (individual ultimate explanation), but also promote social cohesion through a shared ritual (group ultimate explanation).

⁵ The reference in the text at this point is to his "Deux lois de l'evolution penule," *L'annee sociologique*, 1899-1900, as well as to his *Division of Labor in Society* (Glencoe, Illinois: The Free Press, 1947) (Merton 1957)

Fear and Respect

I attempted to do the same in this study: to look beyond the manifest and the proximate, and view the oferenda phenomenon holistically by searching for latent and potentially ultimate explanations. What emerged from analyzing salient categories in my interview data on oferendas was the latent function of out-group fear and respect, which in turn, I hypothesize, could be ultimately beneficial to the group. These data are presented in Table 4.1,

Regardless of race, age or socioeconomic status, seventeen out of seventeen (100%) of the non-practitioners of Afro-Brazilian religions verbalized respect and/or fear while discussing the oferendas, while four out of four members of the in-group also respected the oferendas, but at the same time also explicitly stated that they did not like the practice of placing the oferenda or found it offensive (Fisher's exact: $p < 0.01$). This is not to say the non-practitioners also did 'not like' the oferendas or found them offensive, but this was not the forefront in their minds when discussing the oferendas with me.

Of those four self-proclaimed in-group members that found it offensive, the dominant rationale was an environmental or health concern.

[speaking about the oferendas on the beach] Yeah – well I don't like it very much. We don't need to spread everything that we believe... we don't need to put it on the streets. There are other ways to make oferendas... we don't need to do... to dirty the environment. I don't want, I don't like ...to dirty the streets. Now imagine if you, me and everybody started to put oferendas on the side of the road, on all the streets... trash everywhere. I don't agree. If you want to make an oferenda then Ok, do it in your house... or go to a church and light a candle... there is a space in the church to do that. (E2)

Table 4.1 Verbal reaction to oferendas

Sex	Age	Race	Socio Economic	Religion assessed after Interview	Verbal Reaction to Oferendas.	Attitude
F	82	Branca	High	Agnostic	I see them sit on the beach and on the streets.... no one touches them. Some people don't touch them, I think, because they are afraid.... But for me I am not afraid – it is just respect.	Respect
F	48	Parda	Low > Middle	Protestant / Evangelical	for some people if they don't do that, they don't have a good year, they have a curse [laughs] I don't do this, but I like to go to the Ocean, I like to dress in white and clear.... but to put the stuff in the water... no... I respect this. People do it because it is good for them... I have no problem... I am not a person who would go there and kick the sand, because lot of people do that... that's wrong. You have to respect it.	Respect
F	31	Branca	Middle	Spiritism / Umbanda	I don't want, I don't like – it is very offensive to many people	Don't Like / Offensive
F	34	Branca	High	Spiritism/ Umbanda / Catholic	These are called offerings... these things... I don't like it, usually the people that do that make a pact with the, not the devil, but another thing...	Don't Like
M	59	Branco	Middle > High	Agnostic	<i>Never got to ask the actual question.... Ran out of time</i>	n/a
F	34	Parda	Middle	Catholic but not practicing	Lots of people say they don't believe it – but I bet 99% of people wouldn't kick the Macumba offering for fear of its power	Fear
F	28	Branca	Middle	Evangelical	I think Lord have mercy.... have to be honest... right... I think I'm the type of person, if someone did something bad to another person, I would have to pray for them [laughs]... it's merely a fraction of a second that I would do that - but that's what I think. I'm not going to kick it or pick up the candy. When I was young we would run away because we were afraid of it. When I was growing up there was a lot of it at the crossroads of our street... we would run and say “Jesus has power.” Because we were young, we were little, we didn't know... On a crossroads they are bad.	Fear

Table 4.1 Continued...

Sex	Age	Race	Socio Economic	Religion assessed after Interview	Verbal Reaction to Oferendas.	Attitude
F	26	Branca	Middle	Christian Congregation of Brazil (First Wave Pentecostal)	At Participant Observation: I told her that I quite likely wouldn't be able to make Tuesday evening because I was planning to go and observe an event at the Umbanda Temple. She quickly and very seriously replied: "Be careful going there--- they are a cult and can brainwash you – it is very dangerous!"	Fear
F	42	Parda	Low	Evangelical	Researcher: Are you cold? Because I see her lip trembling. Interviewee: I'm shaking a bit, I'm not cold. Researcher: Cold. When you talk about this type of thing you are not comfortable? Interviewed: The truth is that I never talked about it.... Oh, when I see this kind of thing I know is there evil actions, someone is doing harm to someone wanting to destroy someone's life	Fear
M	26	Pardo	Middle	Various / Catholic	No I respect them... I wouldn't like it is somebody came into the church where I go, and touch the Alter – it's the same thing... we need to respect it. It's not mine, we see and we need to respect.	Respect
M	39	Preto	Middle	Catholic / Rosa Cruz	Yeah.... it's kinda primitive, but there is a beauty behind it. Like the traditions and.... you know.... like the Indians, right? Probably if it's on the beach, they are offering to Yemanjá, the goddess of the sea... yeah. But if I do believe, I wouldn't say I don't.... but I wouldn't say I do.... [laughs for a long time] I respect it. I don't know... it's like the person who says he don't believe in God... I don't really believe they don't believe. A lot of people comment that people that use to say..."oh I don't believe in God...., oh I don't believe in God"... but whenever they are in a really serious problem they pray "Oh My God!"	Respect

Table 4.1 Continued...

Sex	Age	Race	Socio Economic	Religion assessed after Interview	Verbal Reaction to Oferendas.	Attitude
F	29	Branca	Middle	Jehovah's Witness	I just pass it. Because I think we need to respect everything. Because something can come bad to us? CML: So you think bad things will happen if you touch it? Yes... because there are people that kick it, there are people that go there, if it is clean, they get the wine, get the champagne – they drink it! But you cannot ... if it has been offered others other than God, it is better not to touch. I respect it, I do not touch it. CML: Do you think it has power? Yes... it has power, bad power. Because there are some religions that do black magic.	Respect / Fear
M	30	Pardo	Low	Jehovah's Witness	<i>Did not want to talk about the image... he avoided the question, did not want to talk of evil. Although his answer indicated he was fearful.</i> "There is something else happening. There are various issues and distractions that doesn't allow them focus on the truth. They can believe that they are doing the right thing, but they can not see that they are not. There is a smarter creator makes himself appear like God, but all he wants is to distract people. CML: The trickster? The angel? The Satan? Yes - that one! He is much smarter than people know."	Fear
F	34?	Branca	Low > Middle	Umbanda	For me this is offensive. You need to respect everyone. If you need to go to the beach, and if this is really necessary, you can find a beach where nobody goes. And then you are respecting them (the Orixá) and you are respecting others. I don't like to go to the beach on the first day of the year and see a lot of offerings.	Offensive/ Don't Like
M	52	Pardo	Middle	Agnostic	This kind of religion I respect, but I don't like... there is too much noise, too much screaming and drinking Cachaça, and smoking cigars, and sacrifice sometimes an animal (a goat or a chicken) – I don't like this type of option.	Respect

Table 4.1 Continued...

Sex	Age	Race	Socio Economic	Religion assessed after Interview	Verbal Reaction to Oferendas.	Attitude
M	46	Branco	Low > Middle	Umbanda	So, I am Catholic (like this [points to catholic image]) but I am Umbanda - like this [points to Umbanda image]. But I never went to the sea, to the beach, to make these types of offerings. It's not because I think it's wrong or right, it is not for me. It doesn't make me feel good... but when I put my flowers on the sea and when they are doing these things – I am not different than them.	Not for me, don't feel good
F	36	Preta	Low	Agnostic	Nothing. Cross the other side, pass it... CML: Do you ever touch it? No. I have respect for it. Lots of respect.	Respect
M	46	Pardo	Low > Middle	Catholic	I try not to touch because I do not know for who they prayed... maybe they prayed for the Devil. So, if this offering was for the real God, Jesus Christ, this Christ would never accept the food [laughs]... Ok, but I try not to touch [laughs]. I try to stay away – I don't believe in the bad energy, because the bad energy is in those people's minds, bad energy doesn't exist. The devil exists! But he just comes to you if you ask him to come. I am not afraid of going back and forth here because I do not believe in this energy cycle or... but I try not to touch.. I don't touch because I respect.	Respect
M	33	Branco	High	Spiritism	It's something that I would never do. I have nothing against it, I respect it. But it's something that I never plan on doing. I respect people's beliefs and I think they should do things that make them feel good, as long as it is not... this is only... this specifically it December 31, when people have their wishes for the next year... people are not wishing bad things for other people, they are only wishing for themselves, health, more money... and I have nothing against it. It is their beliefs and I respect this. This picture is generally for good things... but obviously there are things that are not for such good things. For me it's like [pause] I don't believe, I don't like it. Anything that goes for the bad, I don't like it. I don't know - I prefer not to deal with it... me, me, I just stay away.	Respect

Table 4.1 Continued...

Sex	Age	Race	Socio Economic	Religion assessed after Interview	Verbal Reaction to Oferendas.	Attitude
M	30	Branco	Low > Middle	Evangelical	it is something that is very prevalent. And I try to respect the cultural aspect of it, the African aspect of it. There needs to be respect of African services (with drums and dancing).	Respect
M	27	Pardo	Middle	Catholic	If they are in my way I detour around it - I deviate. CML: Would you touch it? No! CML: Why? Cause you don't know. CML: But if you don't; believe it, why wouldn't you touch it? [Laughs] Because you don't know! [Laughs] Also if I would touch it, it can be disrespectful of the people and religion that put it there. For example, in the Catholic Church, image you do believe in it.... image if you went into the church wearing only a bikini – you wouldn't do it... you respect the Catholic Church.	Respect
F	42	Preta	Low	Catholic/Evangelical (16 yrs)/ Baptist/Agnostic	I'm afraid, I believe and disbelieve at the same time... but believe me: I do not touch it, I do not speak of it.... if it is there, I do not go near it. CML: Yes, because you are afraid? Because I'm scared actually. Because much happens. It can be for good too, right? But maybe also for bad. It is the evil that we see. Bad things happening to people, unexplained illnesses that sometimes we do not even explain how that person is so sick. We see evil things that are done to good people.	Fear

People don't touch them because they are afraid. It does not belong to me, or anyone else, it belongs to the saint... I don't touch them. It's good to avoid them [he laughs] I respect them whether you believe or not. Never touch them. The garbage men-- they need to clean them. What can they do, what's their excuse? They need to clean... they say sorry and they sweep them up... the saints understand. I believe the saint, as a superior being, they accept that it's the garbage man's job...they [the saints] should excuse it when the man garbage man respectfully picks it up and throws it in the trash. [laughing] It is their job.(T1)

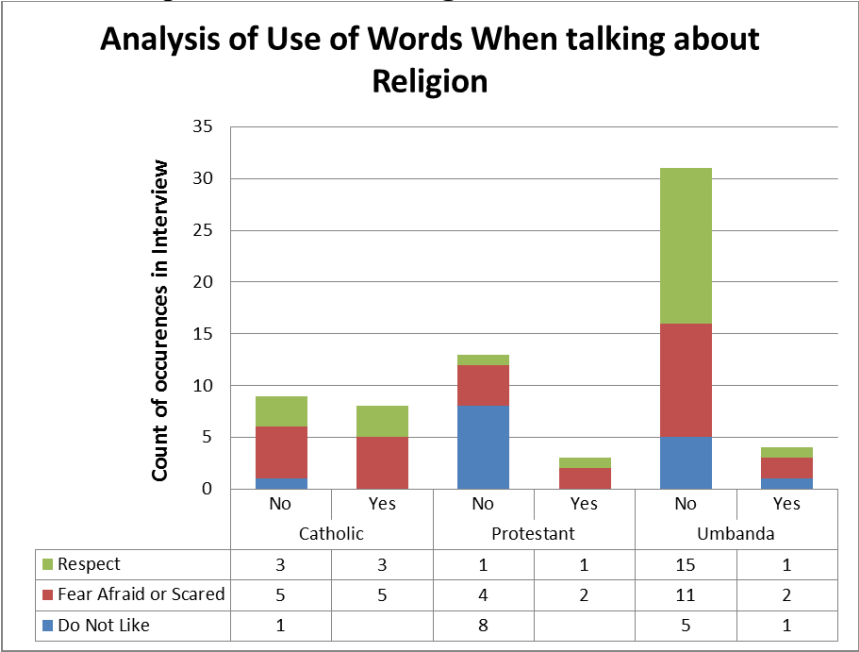
I suspect concerns over the environment is a collective ruse adopted by the in-group to fain dislike for the practice in a hostile environment, using the argument of the government mandated “hygienist movement...crusading under the banner of public health” (Johnson 2001).

Interestingly, race appears to be important to the in-group. In all four cases of those who openly identified as supporters of Afro-Brazilian religion, the individual's race was *Branco*, or white. This result, however, could be indicative of the stigmatized nature of membership, and the perceived advantages afforded to the race. Their white advantage might allow them to say “I am a Macumbeiro,” but their stigmatized position as a ‘outed’ Macumbeiro, makes them say, “I don’t like” the covert practice of leaving an *oferenda*

In order to test for biases in the qualitative analysis of my salient categories a lexical search was performed using the entire interview dataset for the terms: fear, fright, dread, afraid, scared, do not like, don’t like, and respect. Using only data on the dominant religions (Catholicism, Protestants and Umbanda) I cross tabulated these terms with the stage two coding (as described in Chapter II of this dissertation) which coded ‘what religion the interviewee was talking about’. The results were then further divided

by interviewees talking about their own religion (in-group), or talking about another religion (out group). These data are presented in Figure 4.6. Analysis of the results comparing people talking about another religion (i.e. not their own religion) indicated statistically significant findings, Yates $X^2(4, N = 53) = 9.615, p = 0.047$). It would appear that non-Afro-Brazilian practitioners have a strong propensity for both fearing and respecting the Afro-Brazilian religion and its practices.

Figure 4.6 Comparison between religions and words used to describe them



As discussed in Chapter II, fear and respect are also mechanisms used by Protestant and Catholic Churches to maintain group cohesion and elicit membership: “Fear of the Lord is the beginning of wisdom...fools despise wisdom and instruction” (Psalms 111.10 & Proverbs 1:7,9:10). What was especially interesting in this lexical

analysis was the internal fear within the Catholics or part-Catholics. Nearly all Catholics or part-Catholics interviewed indicated that their own fear was a strong force that kept them within Catholicism:

I fear if I do not do a good job here in this life, I will not have a good second life after my death. Religion is to love God, and to be afraid of Him (V3).

I usually see more old people being more religious... usually in the end, people think there's no time or there's no knowledge or they are afraid of death.... so the closer you are to death, I believe you get more religious (R1).

It is because the Catholic Church believes that even if the person is dead they can still continue praying for the person... when I was a kid, I used to be very familiar with these people [the Catholic Church]. My mother used to say to me (makes motion of under the bed), "they are going to tug and push on your feet in the middle of night" My mum would say this, and I used to be very, very afraid of this. My Parents, who are Catholic, they are afraid I will not liberate [go to heaven] (N1).

These mechanisms used by the Catholics in my study group to elicit fear are both overt and public. I suspect that within the group these mechanisms help to maintain internal compliance and solidarity.

Another interesting phenomenon appeared from this quantitative lexical analysis: the strong dislike by non-Protestants of Protestant practices:

I don't like churches like this. I like a church that sings hymns, listens to the orations, reads the Bible, I like listening to the pastoring talking about things good, understand. No screaming, blah blah blah... They are only screaming (T2).

When I went to this type of church, there were people who prayed and fall ... they were desperate. Because they spoke to those people who were falling with the spirit of evil, and it's not that I do not believe it. Evil was there knocking at those people. I don't like it, I didn't go there anymore (W1).

I don't like it when the pastor or missionary puts his hands on the heads of the people and says "talk, talk, talk"... and they have been miraculously cured by the spirits! (G4)

I don't like. I don't like. I tell her [her mother], don't do it... because sometimes she can become fanatical, like this one here "ohh... Jesus has cured you and you don't need to drink you medicine anymore" for example – she has a problem with her circulation, and she will stop taking her medicine. (N1)

These excerpts talking about the Protestant experiences by non-Protestants clearly indicate a dislike, as opposed to either a fear or respect.

The fear and respect that the oferendas generates is completely different. Afro-Brazilian religious practitioners covertly and privately conduct this ritual to give gifts to the Orixás: this is a manifest function. The resulting outcome for people who see the oferenda and the power it represents, the artifact of the ritual, is fear and respect. What differs in this instance, is that fear and respect are generated in both the in-group and the out-group.

Appearing anonymously in the middle of night under the cover of darkness, the very visible and public oferendas, symbolic artifacts of an Afro-Brazilian religion, manifest both fear and respect from practitioners and non-practitioners (or the out-group). Oferendas do not shout their message from the pulpit, they do not broadcast themselves on television, they do not advertise themselves on billboards, or by displaying stickers and amulets on their possessions. They sit quietly on the beach, or on the roadside delivering their none-the-less powerful message: “we are here, respect us, fear us!”

I predict that this fear and respect held by both the in-group and out-group is a latent function. I argue that the fear and respect the oferenda generates for the out-group could also be an ultimate (or evolutionary) explanation for the enduring nature of Afro-Brazilian religions, despite their oppression. What greater asset or adaptation can a stigmatized and oppressed minority group have in an ongoing struggle for survival and competition, than the fear and respect and ultimately acceptance of the majority out-group?

I hypothesize that the manifest actions and proximate beliefs surrounding actions of the individual (the physical oferendas and their perceived outcomes) elicits fear and respect in the out-group (latent outcome), which in turn enables the survival of the in-group despite oppression and stigmatization. This hypothesis finds much support in the literature of Structural Social Psychology where experiments on coercion, “power and dependence... demonstrate that even those with less power initially are viewed as more powerful if they are viewed as willing to do irrational things (also known as the conflict spiral)” (Cook and Emerson 1978; Molm 1997; Sell 2013) (Axelrod 1986; Kahneman and Tversky 1979). Specifically in the power-dependence model, a “bilateral monopoly” can be established where neither party has any alternative options; in this case, the out-group (non-Afro-Brazilian practitioners) uses their power of oppression on the in-group (Afro-Brazilian practitioners), while at the same time the in-group uses the threat and fear of ‘Macumba’ on the out-group. Over a “series of repeated transactions, equilibrium will develop” (Cook and Emerson 1978). Although not exactly a ‘Tit-for-Tat’, the oferenda represents power and provides agency to an oppressed group.

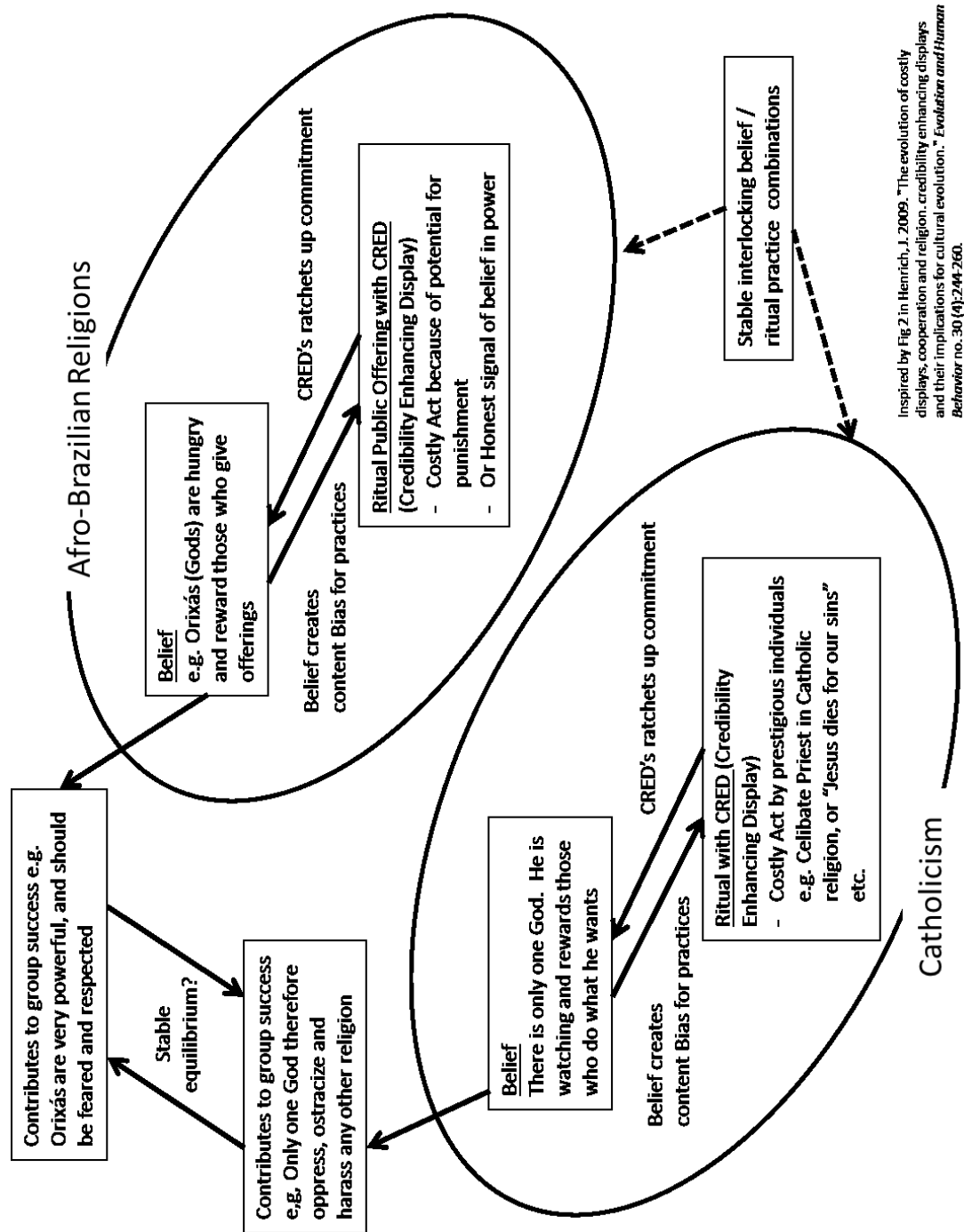


Figure 4.7 Relationship between groups

In order to visualize the process behind this hypothesis I elaborated on a diagram found in (Henrich 2009) (see figure 4.7). In mathematical model, Henrich argues that Credibility Enhancing Displays (CRED), which are a combination of costly and honest signals, can create a feedback loop between practices and beliefs, which in turn can produce stability (or instability) within a population. He then suggests that this can give one group a competitive advantage over another.

In the case of this study, population the two groups are the practitioners of Afro-Brazilian religions, and the majority Catholic Church backed by government legislation. Within the Afro-Brazilian religion costly acts, in the form of *oferendas*, serve as CREDs. The abundant nature of these costly displays, both large and small, ratchets up commitment and creates a content bias for the belief within the religion. A content bias is formulated because of the prolific nature of the *oferenda* and the “perceived advantage” it represents (Richerson and Boyd 2005). This in turn contributes the Afro-Brazilian group’s success because collectively the group promotes and advertises the concept that the *Orixás* are very powerful and should be feared and respected.

Conversely the Catholics witness CREDs by their leaders, such as priests taking a vows of celibacy, or Jesus “dying for our sins”, which in turn ratchets up commitment and creates a context bias for their beliefs. These beliefs enforce internal group cohesion through fear of eternal damnation, and strict rules for adherents, as discussed in Chapter III of this dissertation. One of these rules mandates that there is only one God, and thus all other belief systems should be stopped or oppressed.

When combined, these two stable interlocking belief/ritual practice combinations potentially generate a stable equilibrium: the Catholics ostracizing and oppressing the Afro-Brazilian adherents in the name of their God, while at the same time, the Afro-Brazilian adherents deflect these maneuvers by generating fear and a healthy respect for their Gods.

Costly and Honest Signaling

Although not immediately evident, I hypothesize that one of the things that potentially perpetuates the fear and respect is the costly nature of the *oferenda*. Not the cost in the monetary sense, but costly in the potential for a social stigma to be attached to such a behavior. Within evolutionary theory, this is sometimes referred to as costly signaling or the “handicap Principal” (Zahavi 1975; Zahavi and Zahavi 1997) See (Bird and Smith 2005) for a good overview of the literature.

The easiest to understand example of costly signaling is the peacock (Zahavi 1975). The peacock invests large amount of energy to grow an amazing plume of feathers. This large plume of feathers is both a handicap to the individual’s movement, and also expends a wasteful amount of energy to grow. The advantage of the large plume of tail feathers comes because it signals to potential mates that it is so healthy that it can afford to expend large quantities of energy on traits that would otherwise be useless. This is akin to a person spending large amounts of money on a Prius or Ferrari when a cheap old beater would just as reliably get him from A to B (Griskevicius, Tybur, and Van den Bergh 2010). Costly signaling is useful when a conflict of interest exists between the sender and receiver. To assure honesty in the signal, signals for which

there is a negative correlation between fidelity and costliness (e.g. carrying peacock tail more likely to lead to death for low-fitness males) or fidelity and feasibility (e.g. buying a Ferrari) are favored.

When applied to religion, costly signaling is often couched in terms of group allegiance (Irons 2001; Matthews 2012; Soler 2012; Sosis and Alcorta 2003): people engage in costly ritual activity, such as snake handling in Pentecostal churches, walking on fire, or male circumcision to show, in a costly and potentially dangerous act, that they are a member of the group. These actions are hard to fake, and enhance trust and solidarity in a community.

One very interesting example of this can be found in the work of Brian Brazeal, an anthropologist who studies the Jains of India (Brazeal 2010). Brazeal notes that the Jains torturously pulled out their facial hair in a public setting, in order to show faith to their religion. This is a bloody and gruesome ordeal. Although not framed within the theory of costly signaling, using an economic anthropology framework, Brazeal hypothesizes that as well as signally group solidarity, it also signals the pious and trustworthy nature of the individuals. This in turn gains them out-group (non-Jain) customers in the very lucrative but highly competitive colored gem trade industry (Brazeal 2010). A similar conclusion was reached by Irons who argued that display signals among the Yomut Turkmen of northern Iran helped to secure trade agreements: these "ostentatious" displays signal commitment to Islam to both strangers and group members (Irons 2001). In addition, one could speculate that the exemplarity behavior

and good reputation of individuals in the group, has a knock on effect resulting in the whole group benefiting.

In these examples, these hard-to-fake costly signals are all played out in a public setting; the individual can be recognized by the entire population, including members of their religious group and persons outside their religious group. In the case of the *oferendas*, these are made in the middle of the night under the cover of darkness, and are costly mainly because of the risk of negative feedback and punishment in many forms if discovered. These signals, however, cannot normally be referenced back to one individual. Most people who observe the signal (the *oferenda*) do not know which individual did it.

Why would anyone make a signal that no one sees you doing, and has high potential for ostracism and stigma if you are seen doing it? Perhaps these are not costly signals in the true sense. In the examples presented by Brazeal and Irons, even though the group as a whole may benefit the signal can almost always be tied back to the individual. Perhaps *oferendas* are just honest signals of a stigmatized group people that are seen by everyone including in-group and out-group members; these signals provide evidence of their enduring belief in the power of the Deities. Or perhaps they are simply artifacts of an exchange between an unknown individual and a Deity; but still begs the question – why do it in publically? Regardless of whether the *oferenda* is costly or honest or simply an exchange, the signal itself endures, and is respected and feared. As Sosis states, “for signals to be useful they must be observable by the intended audience” (Sosis and Alcorta 2003). In this case the intended audience could be everyone – in-

group and out-group – using MLS logic, it should not be assumed that it is only the individual, or within group that benefits.

The point I am attempting to make is that using the logic provided by MLS, signaling is not bound to just individual fitness. That is, the benefit might accrue to the group rather than the individual who makes the offering. In fact, in the case of the *oferenda* most observers do not know the identity of the individuals; only the group is identified. Table 4.2 summarizes *oferendas* as a costly signal in relation to other examples of costly signaling. You will note that I have presented the examples of costly signaling in an order: benefiting firstly the individual, then family or kin group, then larger group or religion, and finally between groups. This is to demonstrate that costly signaling theory already spans into the realm of multi-level selection.

Table 4.2 Oferendas as a costly signal in relation to other examples of costly signaling

Phenomena in:	Public Signal	Individual Cost	Witnesses see	Outcome	Benefit	Citation
Peacock	Large plume of tail feathers	Energy expended to move around and grow feathers	Healthy Bird	Females want that bird as mate	Individual	(Zahavi 1975)
Human Male	Buy a Ferrari	Cost of Ferrari	Rich man	Is more attractive to those who want to be with a rich man	Individual	
Meriam Turtle Hunters	Catch is displayed and shared	Less meat for oneself and family	A good hunter and 'wealthy' individual	Attract mates and allies, and deters competitors	Individual and family	(Smith, Bird, and Bird 2003)
Jains of India	Religious piety by gruesomely pulling out facial hair	Pain	Devoutly pious individual	Believe that individual is trustworthy – will do business with this guy	Individual, family.	(Brazeal 2010)
Members of commune	Costly constraints, rituals and signals	Forgo vast range of personal freedoms including fasting, sex and communication with outside world	"honest signals of commitment to the community"	Enhanced intragroup cooperation"	With-in Group	(Sosis and Alcorta 2003)
Some practitioners of Afro-Brazilian religions	Large or small oferenda, some are particularly gruesome indicating potential for evil (they explain unexplainable events)	Some Monetary but mainly potential for ostracism and stigma	Oferenda made despite threats of oppression and social stigma.	Fear and/or respect by out group	Individual and Group	

Costly Signaling by the Individual for the Good of the Group

It has already been widely argued that strategies that ‘sacrifice’ individual fitness for the good of the group can evolve through group selection (Aoki 1982; Craig and Muir 1996; Wilson and Wilson 2008). Although this is a controversial stance, the importance of selection on the group level is being increasingly accepted.

Using the logic of MLS, I hypothesize that the manifest actions and proximate beliefs surrounding actions of the individual (the physical oferendas and their perceived outcomes) elicits fear and respect in the out-group (latent outcome), which in turn enables the survival (ultimate explanation) of the in-group despite oppression and stigmatization. This results in a balance as illustrated in Figure 4.7: On one side Group A oppresses and stigmatizes Group B, and this elicits Group B’s enduring covert efforts at signaling which provokes fear and respect for Group A, reducing their efforts and ability to eradicate Group B. This could be the ultimate evolutionary explanation of oferendas. This is just speculation.

This is different argument than that of Smith, Bird and Bird (2003), Sosis (2003), Irons (2001) or Brazeal (2010). In this instance signaling does not necessarily foster group cohesion or ensure that only true practitioners take part in the religion. I am arguing that these practices persist because the group (and their beliefs) is aided in their survival by the fact that other groups fear and respect it.

Unfortunately we do not have an explanation of why oferendas initially developed within the Afro-Brazilian religion: perhaps originally they were practiced publically and overtly, and only forced underground by out-group stigma and ostracism.

This in turn contributed to the negative perceptions of the practice. This too is speculation.

Additionally, the scant, and hard to obtain data from my four white self-proclaimed practitioners, who “don’t like” the oferendas, indicate that there is no internal pressure, within the Afro-Brazilian religions, to maintain their public and covert placement. If this was really the case, the religion would surely die out too. I do not believe this to be the case. As previous discussed, data from Prandi indicate the religion is growing in popularity (2000). I suspect that I interviewed several people who had placed oferendas during my time in Brazil, but they were unwilling to self-disclose and never admitted it to me during their interviews. Regardless, for now, despite external pressures, the religion is fine because the dominant groups continue to fear and respect it.

My overarching prediction resulting from this study is that those religions that invoke more fear, of both the in-group and the out-group, will be more likely to survive in hostile cultural climates. Out-group fear and respect resulting from honest or costly signals is not a new strategy: from the miniscule red-back spider (*Latrodectus hasseltii*) in Australia, to fear mongering in America resulting from allegations of weapons of mass-destruction. In both cases, the spider doesn’t have to bite, and the bombs don’t have to go off to elicit a healthy fear and respect by the out group.

The respect, reverence, perceived power and fear the oferendas represent is a powerful and enduring signal. Regardless of oppression, the persistent and ubiquitous

nature of the oferendas sends a message to other groups saying “we are still here, we are strong, fear us, we have power”, and it appears to be working.

CHAPTER V

CONCLUSION, PUTTING IT ALL TOGETHER AND BROADER IMPACT

In this chapter I will briefly recap the content of each of the previous chapters. I will then highlight the most significant findings and observations emerging from this study and how applying the logic of MLS aided in the analysis. Finally, I will speculate on some of these findings in relation to their broader impact and how they fit in with some of the religious based phenomena we see in the world today.

Chapter Review

This dissertation started by defining religion and religious behavior. It then placed magic and divination as a subset called ‘magical behavior’ within the set of religious behavior. These magical behaviors were then situated within the evolutionary development of societies using Elman Services’ sociopolitical schema. This schema also includes other attributes that normally accompany those stages, like type of leader, population size or sociopolitical structure, as well as changes in the types of religious practices and leaders as societies evolve. I observed that these stages are often presented as a unilinear continuum, where one stage evolves into the next, moving in a progression from hunter-gatherer through to state level societies; or that individualist magical and shamanic practices would evolve into ecclesiastical religious priestly societies.

Reality, however, is that each level is subsumed or nested within the other; much like David Sloan Wilson’s Russian *Matryoska* Doll analogy (Wilson and Wilson 2008). Each component of the whole is nested within or encased by the other components. This is the basis of multi-level selection. This multi-level nested framework, combined with

Service's evolutionary stage theory may provide a rationale why magical behavior is often associated with individual targets: it is because magical behaviors developed in a time before state level societies, when religious behavior was individual centered – this was long before priestly ecclesiastical societies evolved.

After reviewing evolutionary theories of religion pertaining to religion and noting how these theories normally only focus on one level or the other within the societal hierarchy, I turned to literature that speculates on the individual centered nature of magical behavior. These concepts combined lead me to hypothesize that magical behavior, including prayer and seeking advice, guidance and change from the supernatural, is often evoked as a result on individual or kin related concerns. Moreover, because the individual is nested within a multi-level framework, they are subject to pressures from the layers that have evolved around them. In the case of the individual, they are encased by the larger religious group and the whole of society. I predicted that these pressures, in the form of norms and rules, attempt to control the individual and their behaviors. In this dissertation I am also interested in how, and potentially why, the group controls the individual's magical behaviors.

Chapter II tests these hypothesis and predictions. The data suggest that magical behavior is primarily used to meet the needs of individuals and their kin. In my dataset, 78% of all magical behaviors were targeted at individuals or their immediate kin. Additionally, magical behaviors are primarily practiced privately, even if practiced in public spaces. When practiced in public spaces, a magical behavior is often subjected to group mandated norms and rules that control who understands or witnesses the behavior.

I call this concept I call ‘privatizing the public space’. Some magical behaviors are however performed publically.

In the truly public space, I speculate that these publically performed magical behaviors often serve as “credibility enhancing displays”(Henrich 2009). They create a context bias for the behavior and ratchet up commitment within the group. Furthermore, it was observed that some types of magical behaviors are supported and sanctioned by the religious group, while others are disallowed; this is the nature of evolution, different groups adopt different adaptive strategies for survival. Some strategies work and others do not.

Chapter III opened by discussing the difficulty I had in this study overcoming the influence and authority of the perceived majority religion supported by the ruling government. This influence provides an example of “coercive harmony” (Nader 1996), and the problems of breaking through the ‘ideal’ and unveiling the ‘real’. Chapter III uses Henrich (2003), Boyd and Richerson (2005) heuristics and biases, as well as the logic suggested by MLS, to discuss the dynamic relationship between the individual and the religious group. Through extensive use of qualitative examples, I present adaptations that the group may have adopted in effort to maintain group conformity, namely the use of stereotypes, controlling forms of communication and other non-magical behaviors which promote group unity, conformity and compliance. Some of these group level adaptations impact the fitness of the individual. This chapter speculates that change either at the religious group level (cultural evolution) or at the individual level occurs because of a conflict between the functional adaptations that serve the different layers

within the multi-level and nested hierarchy. For example: a religion may disallow divorce in order to promote unity and group cohesion, even if an individual in that relationship is being abused.

Chapter IV looks at one religious phenomenon in more depth. I hypothesize that the use of magical offerings by one group elicits fear and a healthy respect by the out-group. Combining the credibility enhancing display framework proposed by Henrich (2009) and costly signaling theory, this chapter speculates that the costly signal phenomena, which to date has been mainly been employed to explain individual and within group functional adaptations, could potentially be an evolutionary mechanism or adaptation that functions at the ‘between group’ level. This signaling achieves its goal without the need to identify any specific individual in the group.

Key Findings in this Study

In addition to reflecting on the pros and cons of the methodology employed by this study, this section will highlight the key findings made in this study.

Unconsciously Perpetuating Old Unilinear Evolutionary Theory

Firstly I believe that the concept of pre-determined unilinear evolution, a misleading notion that neo-evolutionary theorists are avidly trying to repair, is unconsciously being perpetuated in nearly every introductory anthropological textbook in their presentation of Elman Service’s stages of sociopolitical evolution. While Service’s theory, and by extension the associated adaptive strategies adopted by each level, are illuminating to the study of cultural evolution, by continually promoting these sociopolitical stages as a fixed linear *fait accompli*, the adaptive strategies developed by

each level in the hierarchy and interconnectedness between the levels become inconsequential and lost.

A more useful or nuanced perspective would illustrate how each level, and the adaptive strategies developed in that level, are assimilated or subsumed within the next; however these strategies may still serve an adaptive function for the level in which it evolved. For example, I assert that magical behaviors evolved when the focus was at the individual and kin level; this was a time before ecclesiastical and state level institutions existed. These magical adaptive strategies still serve the individual today, even though the individual is nested within a larger religious group or state level society. However, because of this nested hierarchy, these individual level adaptive strategies are subject to pressures exerted by the adaptations adopted by ecclesiastical or state level institutions; namely adaptations that primarily function to provide social support and ensure conformity and cohesion. As a result of these pressures, individual focused adaptive strategies which were once public affairs may be forced into hiding and silenced. This is done via culturally endorsed norms and rules (which are actually group adaptive strategies in disguise).

Furthermore, one could predict that when ecclesiastical or state level adaptive functions fail, behaviors revert to individual or kin level adaptive functions. This would explain why in times of crisis, whole communities revert to publically praying for rain in a drought: because none of the adaptive functions of the larger group religion suffice and meet this need.

The Evolutionary Rationale Why People Do Not Talk About Religion

“The commandment we stop judging each other, is essential to maintenance of the unity of the Body of Christians. A great danger to peace and unity of the group of Christians is a person with a spirit of criticism. Quick on the trigger, (this person) criticizes everything that they do not like or do not understand, and sows seeds of doubt and suspicion. In other words, infects the body.

When Christians are judging each other, there are divisions, strife, bitterness, pride, and gossip. Such things destroy the harmony that should characterize the Body of Christ.” (Rm 15.6) (Literature distributed during Participant Observation Baptist Church)

People often do not talk about religion or politics at polite dinner parties – it is somewhat of a golden rule. I argue there is an evolutionary rationale for this. At dinner parties you may encounter people who think differently to yourself. They may question, criticize or judge your beliefs and allegiance. Not only could this cause heated discussions, debates and even arguments which are proximately unpleasant, but ultimately these discussions may cause you to question or even criticize your own beliefs. I believe this is the ultimate functional for this ‘golden rule’.

If or when someone starts to question or criticize their religious beliefs they threaten the cohesion and conformity of that same religious (or political) group. I hypothesize that religious groups have adopted a strategy, a fitness enhancing strategy. This strategy mandates that one only talks about their religion with people who share similar religious values, in a Bible study or in a religious meeting place. This group beneficial fitness strategy ensures you will rarely encounter opposition to your beliefs.

The outliers in this strategy are these that proselytize; those religious groups that enthusiastically knock on your door and want to actively engage in discussions about religion: the Mormons, the Jehovah’s Witnesses and the like. These groups know that

this strategy pushes the ‘dinner party golden rule’, and they even train their people to cope with this. In the following excerpt from my field notes at the Jehovah’s Witness meeting church elder, Brother Leo, explained to me what they do.

I visited with Brother Leo who was tending to the bookstore. He explained to me that the service is the same format the world over; wherever you go it will always follow the same format. He offered that I could come back on Tuesday evening where they trained members on “how to present themselves”. He explained that many people conceived of the church as a “brainwashing cult”... this was especially detrimental because they proselytize and go knocking door-to-door to spread the word of Jehovah... in training they learn how to avoid confrontations, deal with hostile people, answer questions correctly using the word of the Bible etc. He said that the sessions are designed thus: each two people are given a scenario, one has to be the messenger and the other has to be the antagonist. They role play these scenarios in groups in order to attempt to emulate what it is like, and what they might be confronted with, when they knock on someone’s door.

As an anthropologist interested in religion I also had to overcome the ‘dinner party golden rule’. People do not normally talk about religion with people in the out-group, unless they are proselytizing or in the business of religious conversion. It is likely quite rare that someone asks your opinion on religion in a non-judgmental fashion, and does not offer an opinion, counter-argument or formulate some other form of conclusion. On more than one occasion my potential interviewees said to me that they do not normally talk about these things. The resulting initial reactions ranged from nervousness, fear or trying to disguise what their real beliefs were.

I worked hard to overcome these barriers. Several people visited me a number of times in advance of their interview to double check that they were still on my schedule; but I suspect, also to reaffirm that this was in fact an interview and not a disguised

conversion or proselytizing session. One specific candidate dropped by to visit me several times before our interview and told me that he was studying and preparing what he was going to tell me. I lightheartedly replied that there was "no study required!"

One of the unexpected things that happened as a result of conducting interviews on such a personal subject matter was that some people viewed the interview session as an opportunity to discuss other things of a personal nature. At times I felt like the interview substituted for a visit to the psychologist's office; it gave the interviewee opportunity to reflect on their lives, and their choices. I felt the interviews were very cathartic for some people. Two interviews are especially memorable for this specific reason.

One interviewee broke down crying as he described his feelings as a child, trying to please his devoutly religious father and adhere to the strict conventions and beliefs of his religion. He described his feeling of rejection and ostracism and how he did not think he could "go on" and contemplated suicide because he thought he might be a "third kind [of gender]" or "I might be a handbag" [gay]. He described how the religious rules dictated no sexual contact, no masturbation and definitely no homosexual behavior, even though the "fathers [priests] did bad things". He described how he went to see a psychologist to try and cure him of this affliction, how he read books, and how he married a woman and had children, but is now loveless marriage. These are all choices he made because of his religion. Despite the tears, the interview obviously had quite an impact on him; after the interview I received the following email: "Thanks Catharina -- I

will never forget the day I was interviewed by you, as it will be part of my life's story. Cheers and Good Luck to you!”

In another interview, an adult child of a single parent spent over half the interview time reflecting on the years they had spent substituting the charismatic pastor of their church for the lack of father-figure in their life: “It's probably not as clear for me as a child, but now that I look back, and I look back a LOT, it makes a lot of sense as one of the motivators. When you don't have a structured family, you look for any kind of structure – you look for anything that is solid”. Because of these ‘diversions’, time passed very quickly and many times I would have to reschedule additional meetings to ask all my interview questions.

Once I broke through the barrier of the ‘diner party golden rule’, the conversational floodgates would often open and there was no stopping the interviewee. It was surprising, at times, how fast interview time disappeared. It was not uncommon for interviewees to say something akin to: “Jesus – did we talk for one hour already!”, “I like these pictures they are very effective and powerful!” or “Really, I can't believe how fast time has gone... what a shame I have to get back to work, can we meet again?”

Sometimes, even after the scheduled interview time was over, the interviewees would want to add another experience or story to make sure I completely understood their position. Often this story would be the crux of their beliefs and would not be something we had touched on in the interview process. These instances never failed to surprise me. I should have learned. I would announce that the interview time was up, and ask them if they had any questions of me, and the interviewee would say something like:

“just one more thing” or “I want to tell you one more thing.” Often this was when someone who had previously told me they were ‘X’ religion would feel comfortable enough to tell me what they really believed. For example at the end of the interview, after I thanked him for his time and asked if he had any questions for me, one ‘Catholic’ wanted to add

One of the things that really do believe, and ummm... I really do believe is.... to ummmm.... get in contact with the sunlight.

CML: Why?

I don’t know - I have always felt really bad on grey days and I really need the sunlight - during my studies, there is a belief that the sun is a kind of place where all the highest levels of souls go. Then that’s a bright reflection of good stuff. I always felt really bad on grey days.... there is actually a simple exercise to connect yourself to the sun... you imagine like a cord of golden to your head. And that fuses you into the good energy... and I really feel well renewed. These things I do when I feel unbalanced energy wise.... because I really feel... like if you were depressed, you are unbalanced, I believe. By doing that I feel better... Also by bathing in the ocean... it really renews energy for me. I really feel better for that... I don’t know, some people say it’s the salt and stuff... but for me water means renewing. I don’t know why the ocean water makes me feel better than the fresh water when I am unbalanced.

Golden cords and higher levels of beings heading for the sun are not traditional Catholic doctrine. These ‘real’ revelations lead to another hour of discussion. This discussion frequently contradicted some of the previous ‘ideal’ conversation.

Only one person returned to see me after the interview to discuss their concerns with my methodology. They were concerned with the closing of my interview and the negative or positive energy a person might feel. They felt that this is potentially the first time a person has so much attention placed on them, their religion and their personal opinions; especially, as they put it, "simple people." They felt that while some people

might feel happy about it, others might feel “drained, dizzy or let down”. This person suggested that I should ask them how they felt and make sure their mental state was sound. Additionally, we discussed my position of power as a white *estrangeira* (foreigner) interviewing local people; many foreigners and expatriates are in positions of power whether they think they are or not, purely by the nature of global economies and demographics. I responded that I had thought long and hard about this, and was aware of this potential power imbalance. We discussed at length how, because of this inherent power imbalance, some might feel that they had to answer as expected and not as they really felt. This particular interviewee said that my research and questions had really got them thinking; it was such an interesting research topic, on such a personal and little talked about subject. They also discussed the three images I had chosen, and the powerful nature at the imagery to evoke honest and deep response that included personal examples and stories.

On four separate occasions, after the interviews, I received unexpected thank-you gifts. These gifts included philosophy or religious books and gift baskets containing food items. In addition, I often received emails or cards from the interviewees expressing thanks or providing follow up information. Overwhelming, I believe that that interviewee often felt they ultimately obtained more benefit from the interview than I ever expected. There is much power in simply sharing without judging. The ‘diner party golden rule’ is strong, but not impenetrable. I share these experiences, to point out the pitfalls and benefits to others who may wish to adopt similar methods.

Seventy-Eight Percent of Magical Behaviors

As hypothesized, in this dataset many of the magical behaviors were targeted at the individual or their immediate kin. Furthermore sixty percent of these behaviors are practiced in a private or semi-private condition (i.e. conditions P1, P2 or P3). Specifically in the P1 (individual alone in their own space), P2 (individual in public space, but no one hears them, or understands them, or sees them) and P3 (communication is only heard by a very select group of individuals e.g. fellow kin or religious elder) conditions, ninety-three percent of magical behaviors target the individual or immediate kin member. In short, in situations where no other person knows what they are thinking or doing, if people opt for magical behaviors they are mainly concerned with themselves, and their immediate kin.

Only in the P4/P5 condition, or communications shared with the entire group, is the group a significant target (45%) of magical behaviors. In short, people are only altruists when the group sees and/or hears them. I maintain that these conditions are dictated by ecclesiastical religious group norms and rules. I assert that the group has adopted this adaptive strategy of ‘silencing the individual’ and ‘privatizing the public’ for exactly the same reason people do not talk about religion. Collectively, garnering information from outside the group, or complaining within the group can potentially disturb the cohesion of the group. In short, I argue that maintaining individual’s silence enhances group fitness. Laura Nader refers to this as “coercive harmony” (1996)

Magical Behaviors in the P4/P5 Condition as Credibility Enhancing Displays

Exploring the counter-intuitive findings in this study proved equally as illuminating. In the P4/P5 condition (publically displayed behavior), fifty-five percent of magical behavior also targeted the individual or immediate kin; this accounted for approximately twenty-two percent of all magical behaviors. Further analysis demonstrated that many of the P4/P5 behaviors targeting individuals and their immediate kin involved rituals, religious elders, symbols and signals. In concordance with Henrich and others, I argue that these behaviors serve as “inferentially potent” or “credibility enhancing displays” that potentially serve to “ratchet up” commitment of the group (Henrich 2009).

Thus far in the evolutionary literature pertaining to the study of religion, signals, symbols, rituals and creditability enhancing displays have drawn the focus of attention. Maybe this is because of their intriguing or counterintuitive nature, or maybe this is simply because these rituals and credibility enhancing displays are overtly displayed and easier to observe and study – they are after all public. But, according to the data in this study, these overtly displayed magical behaviors only represent twenty-two percent of all magical behaviors; they are not the whole story.

The remaining majority of magical behaviors practiced covertly or suppressed as a result of group mandated norms and rules, also tell a story; a story that demands holistic enquiry. The use of multi-level selection hypothesis opens up the framework of enquiry beyond, just the individual, or just the group, and exposes the entire story as an interconnected suite of traits.

Symbols and Green Beards

In evolutionary textbooks, Hamilton (1972) and Dawkins concept of the “green beard” (1976) is often used to describe a theoretical concept (as applied to humans). A “green-beard effect” occurs when an observable trait, the hypothetical green beard, is recognized by others and preferential treatment is given as a result. In theory, if humans could grow and display some phenotype marker (such as a “green beard”) to indicate common genes, the presence of such a marker would enable individuals to direct their altruistic efforts to others in their ‘group’ more effectively (Richerson and Boyd 2005; Cartwright 2008). Although not a genetic marker, a very interesting and noteworthy example emerged from this dataset to exemplify the “green beard” concept in cultural terms.

Catholics often wear a crucifix as jewelry around their necks, or as overt ornamentation hanging for the rear vision mirrors of their car. For some, the manifest function of this crucifix is perceived protection: an amulet. Onlookers recognize this symbolism, and interpret it as Catholic group membership (i.e. “that person wearing/using that crucifix is a Catholic”). This is the latent function. One Catholic can perceivably trust another Catholic, because they share a common doctrine or set of rules. This is especially important if one is a car accident. If the other driver is a ‘Catholic’ he might be trusted to do the right thing.

This overt symbolism, however, has been hijacked by the Afro-Brazilian religious group. Not only have Afro-Brazilian religions adopted the use of the crucifix, but they have also adopted most of the Catholic Saints. Surreptitiously these symbols

may signify adherence to other Deities. Today one cannot be sure of the fidelity of the symbol. As one interviewee told me “Catholics are now being labeled as Macumbeiros” – and that is a derogatory character slur. In evolutionary terms, the green beard has suffered at the hands of cheaters. This is exactly the problem with “green beards” as identified by Dawkins; however this is a real world cultural example, as opposed to a hypothetical example.

Costly Signaling beyond Individual and With-In Group Function

One evolutionary mechanisms that has received much attention is the concept of costly signaling (Smith, Bird, and Bird 2003; Irons 2001; Sosis and Alcorta 2003; Brazeal 2010). To date, the costly signaling phenomenon has been used to explain ‘within group’ cohesion or ensure that only honest religious practitioners are recognized. In the case of the Afro-Brazilian religious offering (oferenda) this behavior intuitively felt like a costly, or at minimum, honest signal; the cost of the social stigma attached to this behavior has a long history and is engrained in the Brazilian culture. However, this behavior is practiced in the still of the night, surreptitiously with few, if any, witnesses. The individual who gives the oferenda is hardly ever seen, and only the remnants of the offering serve as the signal.

The signal the offering sends is very powerful. This signal, in the form of an offering to the all-powerful Gods, elicits a great deal of fear and a respect from the entire population. Using the logic of MLS, I hypothesize that the manifest actions and proximate beliefs surrounding actions of the individual (the physical offerings and their perceived outcomes) elicits fear and respect in the out-group (latent outcome), which in

turn enables the survival (ultimate explanation) of the in-group despite oppression and stigmatization.

This is different twist on the argument than that of Smith and Bird(2003; 2005), Sosis and Alcorta (2003), Irons (2001) or Brazeal (2010). I am arguing that these practices persist because the group (and their beliefs) is aided in their survival by the fact that other groups fear and respect it. In this case the logic of MLS suggests looking beyond just the individual and their immediate group for an ultimate or evolutionary explanation. One can think of other examples where a similar logic helps to explain group survival: for example, in a large bureaucratic organization like the Internal Revenue Service or Homeland Security, often the ‘rules’ no longer have individual owner – no one person is responsible – yet all employees have power. And the out-group (the tax payer or the international traveler) for the most part, live in fear or at least have a healthy respect for them. Rarely is their power questioned.

We Inherit Our Religion From Our Parents?

While some people may be introduced to the concept of religion by their parents, people do not necessarily inherit the religion of their parents. By analyzing the rationales for change on a “case by case basis” as suggested D.S. Wilson and E.O. Wilson (2008), the individual assesses its ability to maximize fitness or overall reproductive success compared with the those benefits offered by the group.

Individuals use the gamut of heuristics and biases to help make their decisions; however when evaluated using the logic of multi-level selection this study’s sample demonstrates the tension and attempts of balance that exist between the individual and

the group. This study reveals that the people in this sample do not unquestioning conform with their parents directives or blindly follow the group. If options are available, the individual makes informed choices dependent on individual fitness.

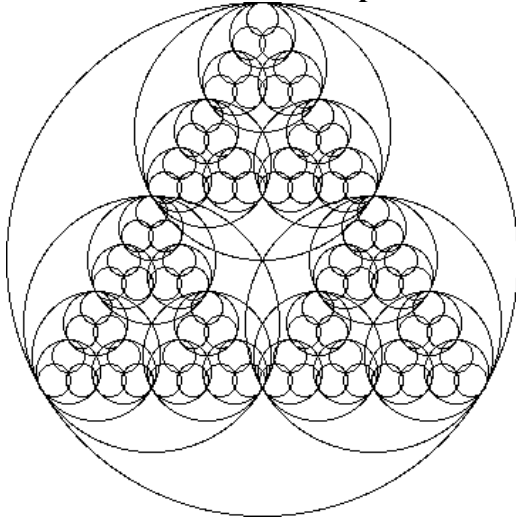
I carefully chose the word ‘informed’. It was always assumed that individuals were informed by their parents (un-biased transmission), and more recently their peer group and their religious group (biased transmission); however more and more often today people are informed by the media, be it electronic or social media. As previously stated, Voas and Crockett found that, in Britain, children were only half as religious as their parents (Voas and Crockett 2005), however Güngör, Bornstein, and Phalet (2012) and Scourfield et al. (2012) data demonstrates that adherence to Islamic religion is on the rise in some countries and not declining as suggested by the British study. Furthermore Pew researchers in the United States of America have also noted a gradual decline in religious commitment in the U.S. public (Pew 2012).

Informed by the logic of MLS and my field observations, the levels (i.e. family, religion and larger society) encasing the individual often attempt to influence or control the behaviors of the individual. My overarching opinion in relation to religious change is that I suspect that a lot of individuals are now ‘informed’ by the new outer most casing of the nested hierarchy: i.e. in some countries, the media is the new outer most encompassing group.

Figure 5.1 is included in an attempt to visualize these layers encased in a multi-level hierarchy. I have purposefully not labeled the diagram, because the circles can represent many things: individuals, families, religious groups, political groups,

institutions or even the media. Additionally the hierarchy is not stagnant, like this image, but rather a constantly changing, mutable and dynamic system.

Figure 5.1 Multi-level, nested hierarchy of individuals, families, groups and media. Each circle can represent many things, and influence can change over time.



Although speculation, it makes logical sense. In predominately Muslim societies, the media has been controlled and contained by the Muslim state; new media is slowly infiltrating, and blurring the barriers between “banned and tolerated” (Eickelman and Anderson 2003). However, the media in Muslim societies is still primarily controlled by the majority religion, and this may explain why we see adherence to Islamic religion on the rise in some places (Güngör, Bornstein, and Phalet 2012). In my study population several people indicated that learned about their religious options through the media, and specifically televised broadcasts of Protestant, Evangelical and Charismatic services. The media, as an institution, has a potentially global sphere of influence. The logic of

MLS suggests that a religious group or a set of beliefs promoted through the media can exert more pressure than just the family alone.

Broader Impact

In this dissertation, I presented evidence that magical behaviors in this sample are primarily evoked for individual and immediate kin related concerns. Furthermore I postulated that that some group level adaptations and the resulting behavioral norms are often not specifically dependent on supernatural or magical explanations. I suspect that many of group level adaptations, or social programs, often can be realized by instituting tangible rules, procedures and structure that have no reliance on supernatural explanations. Nonetheless, as discussed in Chapter I, our evolutionary history gives the individual the propensity for magical thinking.

Using the logic of MLS, it appears that some group level adaptations, such as public rituals and costly displays by religious leaders, which promote group cohesion and conformity, have hijacked this propensity for individual magical thinking. Specifically, group level magical behavioral adaptations are manifested in the form of credibility enhancing displays which in turn create a feedback loop which promote a content bias for the practice.

However, for the most part, for practitioners, magical thinking still serves the individual and their immediate kin. In order to maintain balance within the multi-layered and nested hierarchy, both individual and group fitness must be satisfied. The constant tension and dynamic nature between the layers may explain the substantial variability we see today in the religious behaviors.

This correlation and dynamic relationship between the individual, religion and socio-economic conditions is not new; “religion is in the main a superficial psychological response that seeks the daily aid and protection of supernatural entities to alleviate the stress and anxiety created by a sufficiently dysfunctional social and especially economic environment’ (Paul 2009) (Smith 2012). The religiosity of a population is strongly associated with, among other things, public social programs and safety nets, life expectancy, equality for women, and democratic government; also called the “moral-creator socioeconomic security hypothesis” (Inglehart 1997; Paul 2005). As social programs become more efficient and meet tangible individual level fitness needs, such as healthcare, shelter and sustenance, the balance shifts and different types of religions will be favored.

The logic of MLS suggests that when strict social programs (perhaps instituted by with a government or a religion) stabilize at a group level, more individualistic religions, like Protestantism, and especially evangelical religions will step in and attract and retain more adherents. This is because these religions allow greater religious freedom and provide a balance between (a) a personal and interactive relationship with the supernatural that supports initiatives that benefits the individual and (b) other group beneficial endeavors. Other religions, for example Catholicism, may continue to lose adherents unless they balance their group rules with some more individual focused adaptations – unless, of course, social programs start to fail. Chapter III provides some evidence that the Catholics are changing their *modus operandi* with the evolution and emergence of the Roman Catholic Charismatics. Furthermore, the recent appointment of

the “People’s Pope”, Pope Francis, also provides evidence of conscious group level change to highlight the importance of the individual in the whole.

What is interesting is that we are seeing a rise of new age or spiritual thinking in places where atheism was once prevalent (Houtman and Mascini 2002; Houtman and Aupers 2007). Specifically, Houtman notes an “increased moral individualism” that “has advanced farthest in France, Great Britain, the Netherlands, and Sweden” (2007). To explain this, some scholars argue what has become known as the “spiritual turn”(Houtman and Aupers 2007), the “infirmity debate” (Heelas 2006) or the “homeless mind” (Berger 1973). By “concentrating on activities found in the holistic milieu which is to be found in many countries today, [some of these scholars argue]... that activities like yoga or spiritual aromatherapy serve as 'intermediary institutions', successfully negotiating a path between antinomian freedom and social conformism (Heelas 2006). This new age, or spiritual, thinking focuses on individualism but at the same time also allows for a social life (Bruce 2002). Within the logic of MLS, this “intermediary institution” flying under the banner of ‘new age’ or ‘spiritual’ is a new middle ground or balance, between the traditional nested layers of individual and the group.

Conclusion

In conclusion, I argue that although it is a very broad, all-encompassing hypothesis, Multi-level Selection can aid in the application of evolutionary theory to many phenomena, either religious or non-religious. In this study, its application allowed for the expansion of evolutionary theory beyond just individual or group level religious adaptations, and forced one to look at religious phenomena holistically. It also

highlighted how each of the various hypotheses and theories emerging from evolutionary theory, such as costly signaling, cultural selection, together with the myriad of theories that speculate on the function of religion, can all be nested together.

Application of the MLS highlights the potential for agency or power that each layer has in the collective whole, as well as the dynamic and highly variable nature of human culture, and especially religion. MLS provides a framework to explain change or conflict over time, and a rationale for why one set of beliefs does not suit all people all the time. As such, MLS addresses some of the criticisms of functionalism.

Furthermore, I hope to have established how qualitative data and analysis might be usefully incorporated as a methodology in evolutionary studies. In closing I argue that acceptance of a Multi-Level Selection, together with a holistic mindset, will surely promote consilience between disparate disciplines, theories and hypotheses.

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